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PERSONAL.

Mr. W. W. Southgate has been appointed City Engineer of Nashville, Tenn.

Mr. Rudolph P. Miller, Assoc. M. Am. C. E., of the Department of Buildings, New York city, sailed for Europe, Feb. 19, for the benefit of his health.

Mr. A. C. Foster has been appointed General Superintendent of the Trans-Mississippi & International Exposition to be held at Omaha, Neb., this year.

Mr. Alonzo H. Kimball has been confirmed as Street Commissioner of Medford, Mass. He has been Superintendent of Streets of Hingham, Mass., for eight years, and is one of the Trustees of the Highway Association of Massachusetts.

Mr. E. M. Sprague, civil engineer, has been appointed Engineer and Agent for the Gillette-Herzog Mfg. Co., at Denver, Colo. He has been for a number of years connected with various bridge and structural iron firms, and was until recently Chief Engineer of the Southwestern Bridge & Iron Co., Fort Worth, Tex.

Mr. Lee H. Bowman, engineer and draftsman, in the employ of the Carnegie Steel Co., Limited, Pittsburg, Pa., sailed on the "Etruria," Feb. 19, on his way to St. Petersburg, Russia, where he will take the measurements of the vessels and drawings of the plates of the battleships "Peresvet" and "Olysibia," of the Russian Government, for which the Carnegie company has the contract to furnish armor.

OBITUARY.

Mr. Cornelius J. Sloat, civil engineer and surveyor, of Middletown, N. Y., committed suicide Feb. 20.

Mr. John Young, civil engineer, of Louisville, Ky., died Feb. 9, aged 87. He was born in Pittsburg, Pa., and went to Louisville in 1833, where he engaged in the wagon manunfacturing business. He abandoned this for civil engineering, which he followed until a few years ago.

Mr. Alexander Wadsworth, who in his early life was a civil engineer, died in Boston, Mass., Feb. 15, aged 92. He designed and built the Chicopee (Mass.) water-works, and laid out Pemberton Square, Boston. In later years he engaged in politics and was a member of the water board.

Capt. Horace C. Thacher, of the firm of Thacher & Breymann, submarine engineers and contractors, of Toledo, O., died Feb. 18, aged 54. He was in the city engineering department for 19 years, during nine of which he was City Engineer. In 1881 he formed a partnership with Mr. George Breymann, and the firm has since then done some of the heaviest submarine work in the United States.

Mr. John Mulligan, President of the Connecticut River R. R., died at his home in Springfield, Mass., Feb. 22, aged 78. He was born in Hartford, Conn., and began life as an apprentice to a builder of engines in that city. In 1842 he was an engineer on a Connecticut River steamer, and at the close of that year entered the employ of the Boston & Albany R. R., at that time known as the Western R. R., as an engineman. In 1852 he was made Master Mechanic of the Connecticut River R. R., and in 1872 became its Superintendent. He succeeded Mr. N. A. Leonard as President of the road, in 1890.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

FRANKLIN INSTITUTE.
Feb. 25. "The Disposal of Garbage," Rudolph Hering.
Mar. 8. "Radiography," Prof. Arthur Goodspeed; Mar. 9. "The Development of the American Portland Cement Industry," Robert W. Lesley. Secy., Wm. H. Wahl, 15 S. Seventh St., Philadelphia, Pa.

INDIANAPOLIS ENGINEERING CLUB.
Feb. 26. Secy., Edson F. Folsom, Indianapolis, Ind.

ENGINEERS' CLUB OF ST. LOUIS.
Mar. 2. Secy., Richard McCulloch, St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Mar. 2. Secy., C. W. Hunt, 220 West 57th St., New York city.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Mar. 3. Secy., G. H. McLeod, 112 Mansfield St., Montreal, Canada.

BROOKLYN ENGINEERS' CLUB.
Mar. 3. Secy., A. J. Provost, Jr., 191 Montague St., Brooklyn, N. Y.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
Mar. 4. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

CHICAGO ELECTRICAL ASSOCIATION.
Mar. 4. "The Relationship of the Hunter and Tesla Patents," A. Miller Belfield. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

THE ENGINEERS' CLUB OF PHILADELPHIA.
Mar. 5. "The Dome of the City Hall Tower at Philadelphia," Francis Schumann. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Mar. 7. Secy., C. L. Annan, City Engineers' Office, St. Paul, Minn.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Mar. 7. Secy., H. J. March, Library Bldg., Buffalo, N. Y.

DENVER SOCIETY OF CIVIL ENGINEERS.
Mar. 8. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Col.

NORTHWEST RAILWAY CLUB.
Mar. 8. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.

RAILWAY SIGNALING CLUB.
Mar. 8. Pittsburg, Pa. Secy., Earl M. Seitz, C. & N. W. Ry., Chicago, Ill.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Mar. 8. Secy., Wm. H. Searles, Case Library Bldg., Cleveland, O.

NEW ENGLAND RAILROAD CLUB.
Mar. 9. Secy., Edward L. Jones, P. O. Box 1158, Boston, Mass.

CENTRAL RAILWAY CLUB.
Mar. 11. Secy., H. D. Vought, "Courier," Buffalo, N. Y.

NORTHWESTERN TRACK AND BRIDGE ASSOCIATION.
Mar. 11. Secy., D. W. Meeker, St. Paul, Minn.

ST. LOUIS RAILWAY CLUB.
Mar. 11. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

MONTANA SOCIETY OF ENGINEERS.
Mar. 12. Secy., Albert S. Hovey, Helena, Mont.

ENGINEERS' CLUB OF KANSAS CITY.
Mar. 14. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Mar. 15. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

WESTERN RAILWAY CLUB.
Mar. 15. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Mar. 16. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Mar. 16. Secy., A. Sorge, Jr., 1020 Monadnock Block, Chicago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Mar. 16. Secy., Frank H. Olmsted, Los Angeles, Cal.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Mar. 17. Secy., F. A. Charpiot, Macon, Ga.

ENGINEERS' CLUB OF CINCINNATI.
Mar. 17. Secy., J. F. Wilson, P.O. Box 333, Cincinnati, O.

NEW YORK RAILROAD CLUB.
Mar. 17. Secy., W. W. Wheatly, 168 Montague St., Brooklyn, N. Y.

ENGINEERS' CLUB OF COLUMBUS.
Mar. 19. Secy., M. S. Hopkins, 14½ N. High St., Columbus, O.

TECHNICAL CLUB OF OMAHA.
Mar. 21. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' CLUB OF MINNEAPOLIS.
Mar. 21. Secy., H. E. Smith, 1620 S. E. 4th St., Minneapolis, Minn.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Mar. 21. Secy., Jas. K. Zollinger, 16 Norton Bldg., Louisville, Ky.

ENGINEERING ASSOCIATION OF THE SOUTH.
Mar. 24. Secy., C. B. Wilson, Nashville, Tenn.

THE AMERICAN SOCIETY OF IRRIGATION ENGINEERS.
Mar. 25-26. Annual Meeting, Denver, Colo. Secy., John S. Titcomb, 38 Jacobson Block, Denver, Colo.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.
Mar. 30. Secy., R. W. Pope, 26 Cortlandt St., New York city.

ILLINOIS STREET RAILWAY ASSOCIATION.
May 18. Annual meeting. Secy., C. K. Minary, Springfield City R. R., Springfield, Ill.

NATIONAL ASSOCIATION OF MANUFACTURERS.—The general offices of this organization, including the office of the President, Theodore C. Search, have been removed from 1743 North Fourth St. to the "Bourse," 4th St., below Market St., Philadelphia, Pa.

BOSTON SOCIETY OF CIVIL ENGINEERS.—The regular meeting, held Feb. 16, was devoted principally to the reading of papers discussing the work of removing grade crossings on the Boston & Albany R. R., at Newton, Mass. The papers were presented by W. G. Chamberlain, William Parker and Irving T. Farnham, and were illustrated by a large number of lantern slides.

ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.—In the report of the annual meeting, in our issue of Feb. 3, it was inadvertently stated that the paper on the "Park System of Peoria" was presented by Mr. O. F. Dubuis, Engineer of the Park Board. The paper was prepared by Mr. Dubuis and Mr. R. R. Bourland, member of the Board, and was presented by the latter.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.—This society held a regular meeting, at 410 Penn Ave., Pittsburg, Pa., Feb. 15. The paper for the evening was read by Mr. J. N. Chester, on "The Elevated Condenser for Central Condensing Plants."

After a very interesting discussion, in which the question of the best point at which to take up the air and similar subjects were dwelt upon, the society adjourned.

LOUISIANA ENGINEERING SOCIETY.—The regular monthly meeting was held Feb. 14. The first paper, by Sidney F. Lewis, was a review of the engineering work in and about New Orleans, showing why an engineering society such as the one they were members of should be successful. Mr. Thomas L. Raymond followed with a paper in which he spoke of the importance of scientific application of engineering. He mentioned the fact that those in charge of the distribution of public funds are often misguided by unscientific publications, and are led to construct affairs which in the end are worthless, such as electric light towers for city illumination. Another paper was read by A. F. Theard, in which stress was laid upon the general good to be derived from an engineering society due to the individual study required, the watch kept upon local engineering work and the opportunity for discussing the need of new works.

ENGINEERS' CLUB OF ST. LOUIS.—The 467th meeting of this Club was held Feb. 16, with 63 members and visitors present. Mr. Richard McCulloch read the paper of the evening, entitled "Recent Advances in Electric Railway Practice." The paper described the recent applications of electricity to interurban roads and heavy railway service. A general description was given of the conduit roads now being installed in New York city.

Richard McCulloch, Secy.

JOINT COMMITTEE ON NEW BUILDING CODE.—This committee, composed of delegates from some of the building and real estate organizations of the Borough of Manhattan, New York city, held a meeting at 74 W. 126th St., on Feb. 17. A committee of 12 was appointed to wait upon the Commissioners of Buildings and obtain their views and ask for their co-operation in bringing about the preparation of a Building Code applicable to all the boroughs as provided for in the new charter. Meanwhile the state legislature will be urged not to pass any bills affecting the building laws of this city. A protest was entered against the bill now pending, limiting heights of buildings, on the ground that there is a special provision for settling this question in the new city charter.

The next meeting of the Joint Committee on New Building Code will be held at No. 74 West 126th St., on Thursday evening, March 3. Albert E. Davis, Secy.

WESTERN FOUNDRYMEN'S ASSOCIATION.—At the meeting held at the Great Northern Hotel, Chicago, on Feb. 16, Mr. Eugene W. Smith presented a paper on "Changes in Foundry Mixtures," which is abstracted elsewhere in this issue.

Two short papers discussing Mr. McDowell's paper on "The Value of Metalloids in Cast-Iron" (Eng. News, Feb. 3, 1898), were then presented by the Secretary, Mr. A. Sorge, Jr. The first of these was on "Carbon and the Strength of Iron," by Mr. Guy R. Johnson, and the second, "Is Manganese a Metalloid?" by Mr. Alex. Outerbridge. A verbal discussion followed, in which Mr. McDowell participated. He stated that some furnace companies are now selling iron by analysis, as in the case of steel, but in too many cases the analyses are not reliable. Mr. Ferguson stated that for some years he had been buying his pig-iron by analysis, making an analysis of each carload as a check upon the furnace company's analysis, and rarely found any material difference.

MONTANA SOCIETY OF ENGINEERS.—The regular monthly meeting of the society was held Feb. 12 in the Merchants' National Bank Bldg., Helena, Mont. Applications for membership were received and considered from 7 managers and superintendents of mines, 4 mining engineers, 2 civil and mining engineers, 2 civil engineers, 2 electrical engineers and one architect. The report of the Trustees was read and the reports of the Secretary and Treasurer were read and approved. A motion was carried to publish the proceedings of the 11th annual meeting held in Butte, Mont. The society was much encouraged by the interest and activity of the Butte members. Some in particular are deserving of special credit. Plans were discussed to increase an interest in the society and of procuring more papers. If any member offers as an excuse a lack of time, he will immediately be referred to the past president's closing remarks: "So true it is, that it is not time which is wanting to men, but resolution to turn it to the best advantage."

A. S. Hovey, Secy.

ENGINEERS' CLUB OF MINNEAPOLIS.—The annual meeting of this club was held at the Hotel Hyser, Feb. 14. Prof. W. R. Hoag read a paper on "State Drainage of the Red River Valley." In the course of his remarks he compared this valley with the flat country of Holland, which allowed storm water to remain and endanger the proper cultivation of the naturally rich soil. Owing to a convention in 1886, at which money was subscribed and state assistance since, 115 miles of drainage canals, 20 to 35 ft. wide, and from 4 to 10 ft. deep, with a capacity of 230,000 gallons per minute, have been completed. As a result thousands of acres of land have been reclaimed and large stretches of former marsh land are now being cultivated. So successful has been the work that many individuals are extending the canals with private capital. Mr. Hoffman supplemented Mr. Hoag's remarks by giving many interesting details of the work of construction and the general plan followed. The reports of the retiring officers exhibited a very prosperous condition. The officers elected for 1898 are: Pres., F. W. Cappelen, city engineer; Vice-Pres., I. E. Howe; Secy. and Treas., H. E. Smith; Librarian, W. W. Redfield; Member of the Board of Managers of the Association of Engineering Societies, George D. Shepardson.

ENGINEERING ASSOCIATION OF THE SOUTH.—A meeting was held, Feb. 13, at the office of the U. S. Engineers, Nashville, Tenn. Prof. W. H. Schuerman, chairman of the committee on Papers and Printing, reported that the papers now on hand will go to press at an early date. A monthly issue of papers was discussed, and it was thought best to print each paper and send to all members 30 days prior to its presentation to the association, thus affording an opportunity for a more thorough

discussion. At the close of each year all papers, together with discussions, will be bound in one volume and issued to the members.

Prof. W. H. Schuerman, of Vanderbilt University, described "A New Graphical Method of Determining Stresses from Rolling Loads in Bridge Trusses." The method is unique and easy of application. By it the stresses, from any given load system, in all members of a truss, of any depth, parallel or non-parallel chords, may be obtained directly from a diagram. This paper will be published shortly.

At the March meeting Mr. Hunter McDonald will present a paper on "Small Culverts for Railroads." Mr. Wm. Leftwich will discuss interesting features of "Municipal Engineering," and Messrs. L. P. Brown and J. S. O'Neal will treat the subject of "Phosphate."

C. B. Wilson, Secy.

WESTERN RAILWAY CLUB.—The regular meeting was held at the Auditorium Hotel, Chicago, on Feb. 15. Two papers were presented for discussion, as follows: "Nickel Steel for Crank Pins and Axles," by H. F. J. Porter, of the Bethlehem Iron Co., and "The Coffin Toughening Process," by L. R. Pomeroy, of the Cambria Iron Co. In the former paper, special advantages were claimed for forgings of nickel steel over those of ordinary steel and wrought iron. The discussion was by no means all in favor of steel, some members having had very unsatisfactory results from steel axles. One member pointed out that while many iron axles were forged from piles, and thus contain cinder, Yorkshire iron is made in ingots from which the axles are forged, thus avoiding cinder. Mr. E. E. Russell Tratman (Associate Editor of Engineering News) thought the element of cost was an important consideration, that is, whether the additional life and efficiency of the nickel-steel axle or crank-pin would be enough to warrant the extra cost of this metal. In regard to the Coffin process for toughening steel, he stated that the process as described in Engineering News, Feb. 16, 1893, was an air-cooling process, while the paper described a water-cooling process, but Mr. Pomeroy explained that while the inventor had patents on the former it had never been practically applied.

A discussion on "Can Steel be Safely Used for Coupling Links," was then taken up. One member stated that after trying a car load of steel links he was led to repeat his order. In his experience they never broke through the weld.

The next subject for discussion was the danger from accidental shutting of the angle cock, to which the air-brake hose is attached, and its prevention. It was stated that three years ago the Michigan Central R. R. abandoned the use of the angle cock with satisfactory results.

The last subject for discussion was whether the brakes on the forward engine of a double-header train should be cut out, and the general opinion was to the effect that while this is practised to some extent, it is not to be recommended, and in case of a law suit over an accident, it would be a strong point against the railway company, if it could be shown that one of the engines had its braking power purposely shut off.

ANNUAL MEETING OF THE AMERICAN PAPER AND PULP ASSOCIATION.—The annual meeting of this Association was held in the Waldorf-Astoria Hotel, New York city, beginning Feb. 16. The President, Mr. Hugh J. Chisholm, read the opening address, which was a general review of the status of the paper and pulp trade of the United States. He called attention to the rate at which exports of paper and pulp were increasing, and stated that for the 11 months ending November, 1896, the valuation was $2,500,000, while for the 11 months ending November, 1897, it was $4,000,000, or an increase of 56%. The condition of the trade in foreign countries was outlined. Other matters, such as forests, power generation and a permanent home for the association were briefly considered. Mr. C. W. Lyman next presented the Secretary and Treasurer's report. These exhibited a growing membership and a pleasing surplus to the credit of the Association. Next in order were the reports of the Vice-Presidents having in charge the various branches of the paper industry, such as writing, book, news, wrapping, etc. These were very brief, and all predicted good prospects for 1898.

Under the head of papers, Mr. Charles F. Scott, Chief Electrical Engineer of the Westinghouse Electric & Mfg. Co., read one entitled "Electricity in Paper-Making." In substance this was a brief and simple explanation of some of the characteristics of electricity and electrical apparatus and showed in what way and under what conditions they may be made profitable in the paper-making industry. He cited several paper mills using electricity to show how flexible and economical such a system of power distribution is. The afternoon session was opened by Mr. Chas. C. Emery, of New York city, who read a paper on the "Economical Use of Steam in the Manufacture of Paper." Prof. B. E. Fernow, of the Forestry Division of the Department of Agriculture, followed, reading a paper entitled "Forestry and Wood-Pulp Supplies," in which he compared the careless, improvident use of American forests with the forest cultivation of some of the European countries. This paper clearly outlined the proper course to follow in regard to timber preservation and cultivation, and made a strong appeal in behalf of the study and use of the science of forestry.

Other papers, "How to Apply Forestry to Spruce Lands," by Austin Cory, and "The Sustained Yield of Spruce Lands," by Gifford Pinchot, finished the first day's session. The following morning, two papers were read—one by Mr. Clemens Herschel, entitled "Some Facts in Hydraulics," in which he defined the units used in measuring water power, and the systems of administration of the water powers in and about Lowell, Mass.; and one by Prof. Franklin H. Giddings, on "Combination of Capital in Relation to National Prosperity." The convention was concluded with reports of various committees, the election of officers and the enjoyment of a very pleasant banquet held in the Astor Gallery of the Waldorf-Astoria Hotel.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Feb. 24.	Highway (8½ miles),	Vernon, Ind.	Feb. 17
Feb. 24.	Pipe covering, etc.,	Chicago, Ill.	Feb. 17
Feb. 24.	Water pipe,	Fort Harrison, Mont.	Jan. 27
Feb. 24.	**Sewers, etc.,**	**Cleveland, O.**	**Feb. 3**
Feb. 24.	Elevators,	Omaha, Neb.	Feb. 10
	Advertised, Eng. News, Feb. 10 and 17.		
Feb 24.	School building,	Boston, Mass.	Feb. 10
Feb. 24.	Heating, etc.,	Marion, O.	Feb. 10
Feb. 25.	Arc lights (175),	West Superior, Wis.	Feb. 10
Feb. 25.	Street sweeping, etc.,	St. Louis, Mo.	Feb. 17
Feb. 25.	Bridge,	Saginaw, Mich	Feb. 17
Feb. 25.	Granite walks,	St. Louis, Mo.	Feb. 17
Feb. 25.	Valve stems, etc.,	St. Louis, Mo.	Feb. 24
Feb. 25.	Sweeping, removing garbage,	Troy, N. Y.	Feb. 24
Feb. 25.	Road,	Oroville, Cal.	Feb. 24
Feb. 25.	Grading, sidewalks,	Walla Walla, Wash.	Feb. 24
Feb. 26.	Gum gaskets, etc.,	St. Louis, Mo.	Feb. 24
Feb. 26.	Grading and sidewalks,	Seattle, Wash.	Feb. 24
Feb. 26.	Water filters,	Elgin, Ill.	Feb. 17
Feb. 26.	Storage batteries (1,200 cells),	Chicago, Ill.	Feb. 17
Feb. 26.	School building,	Cleveland, O.	Feb. 10
Feb. 26.	Purchase l't and water plant,	Brunswick, Ga.	Jan. 20
Feb. 28.	Brick or granite block paving,	Toledo, O.	Feb. 10
Feb. 28.	Steel stand-pipe,	Maquoketa, Ia.	Feb. 10
Feb. 28.	Main sewer,	La Junta, Colo.	Feb. 10
	Advertised, Engineering News, Feb. 10.		
Feb. 28.	**Sewers,**	**Tampa, Fla.**	**Feb. 3**
	Advertised, Eng. News, Feb. 3 to 24.		
Feb. 28.	**Steel towers, etc.,**	**New York.**	**Feb. 3**
	Advertised, Eng. News, Feb. 3 to 24.		
Feb. 28.	**Dredging,**	**Keweenaw Pt., Mich.**	**Feb. 3**
	Advertised, Eng. News, Feb. 3 to 24.		
Feb. 28.	**School buildings,**	**Anadarko, Okla.**	**Feb. 3**
Feb. 28.	Harbor work,	Pernambuco, Brazil.	Jan. 13
Feb. 28.	Sewer bonds,	Coshocton, O.	Feb. 17
Feb. 28.	Sewer, grading, etc.,	Wapakoneta, O.	Feb. 17
Feb. 28.	Bonds,	Omaha, Neb.	Feb. 17
Feb. 28.	Stone paving, etc.,	Buffalo, N. Y.	Feb. 24
Feb. 28.	Retaining wall,	Buffalo, N. Y.	Feb. 24
Feb. 28.	Sewer,	Houston, Tex.	Feb. 24
Mar. 1.	Pipe sewers,	Coshocton, O.	Feb. 24
Mar. 1.	Brick sewers (6⅔ mls),	Terre Haute, Ind.	Feb. 24
Mar. 1.	Granite blocks, etc.,	Somerville, Mass.	Feb. 24
Mar. 1.	Machinery,	Seattle, Wash.	Feb. 24
Mar. 1.	Machine shop,	Milwaukee, Wis.	Feb. 24
Mar. 1.	Electric light plant,	Monroe, Ga.	Feb. 24
Mar. 1.	Trestle work,	South McAlester, Ind. Ter.	Feb. 24
Mar. 1.	Railway ties,	Montreal, Que.	Feb. 17
Mar. 1.	Court house,	Clarkesville, Ga.	Feb. 17
Mar. 1.	County bridges,	Tekamah, Neb.	Feb. 17
Mar. 1.	Railway,	Henrietta, Tex.	Jan. 13
Mar. 1.	Church building,	Melrose, Minn.	Jan. 27
Mar. 1.	**Naval supplies,**	**Mare Island, Cal.**	**Feb. 3**
Mar. 1.	Railway (25 miles),	So. McAlester, Ind. Ter.	Feb. 24
Mar. 1.	Pipe sewers (2,800 ft.),	Elizabeth, N. J.	Feb. 10
Mar. 1.	Building work,	Roseau, Minn.	Feb. 10
Mar. 2.	Market house,	Cincinnati, O.	Feb. 10
Mar. 2.	**Gravel roads,**	**Atlantic county, N. J.**	**Feb. 3**
	Advertised, Eng. News, Feb. 3 to 24.		
Mar. 2.	Decorative painting,	Detroit, Mich.	Feb. 17
Mar. 2.	Sewers,	Spokane, Wash.	Feb. 17
Mar. 2.	Bridge (228 ft. long),	St. Thomas, Ont.	Feb. 24
Mar. 2.	Repairing paving,	Buffalo, N. Y.	Feb. 24
Mar. 2.	Macadamizing, paving,	Toronto, Ont.	Feb. 24
Mar. 2.	Market house,	Cincinnati, O.	Feb. 24
Mar. 3.	Pumping station,	Fort Wayne, Ind.	Feb. 24
Mar. 3.	Sewer work,	Philadelphia, Pa.	Feb. 24
Mar. 3.	School building,	Alva, Okla.	Feb. 17
Mar. 3.	Electric lighting,	New London, Conn.	Feb. 10
	Advertised, Eng. News, Feb. 10 to 24.		
Mar. 3.	Stop cocks, valves, etc.,	Cleveland, O.	Feb. 10
Mar. 3.	Water bonds, etc.,	East Cleveland, O.	Feb. 10
Mar. 4.	Steel plating,	St. Louis, Mo.	Feb. 10
	Advertised, Eng. News, Feb. 10 to 24.		
Mar. 4.	Bridge lumber,	Richmond, Ind.	Feb. 17
Mar. 4.	County bridges,	Nebraska City, Neb.	Feb. 17
Mar. 4.	Dam,	Wilkes Barre, Pa.	Feb. 17
Mar. 4.	School building,	Hamilton, O.	Feb. 17
Mar. 4.	Iron bridge,	Georgetown, Colo.	Feb. 24
Mar. 4.	Grading,	Omaha, Neb.	Feb. 24
Mar. 4.	Earth removal,	Omaha, Neb.	Feb. 24
Mar. 5.	College buildings,	Richmond, Va.	Feb. 24
Mar. 5.	Iron flagstaffs,	St. Louis, Mo.	Feb. 10
Mar. 5.	Pumping engine, foundations,	Chicago	Feb. 10
Mar. 5.	Improving road,	Cincinnati, O.	Feb. 10
Mar. 7.	Intercepting sewers,	Chicago, Ill.	Feb. 10
	Advertised, Eng. News, Feb. 10 and 17.		
Mar. 7.	School bonds ($90,000),	Toledo, O.	Jan. 20
Mar. 7.	Refitting vault,	Waukegan, Ill.	Jan. 20
Mar. 7.	Water-works,	Oregon, Mo.	Feb. 17
	Advertised, Eng. News, Feb. 17 and 24.		
Mar. 7.	Cleaning streets,	Tucson, Ariz.	Feb. 24
Mar. 7.	Brick and pipe sewers,	Toledo, O.	Feb. 24
Mar. 7.	Paving, etc.,	Toledo, O.	Feb. 24
Mar. 8.	Electric light plant,	West Point, Miss.	Feb. 24
Mar. 8.	Macadamizing,	Stockton, Cal.	Feb. 24
Mar. 8.	Boiler plant, etc.,		Feb. 24
Mar. 8.	Jail building,	Madera, Cal.	Jan. 20
Mar. 8.	Jail building,	Grand Haven, Mich.	Feb. 10
Mar. 9.	Wire fence (60 miles),	Pine Ridge, S. Dak.	Feb. 17
Mar. 9.	Tower clock and bell,	Omaha, Neb.	Feb. 17
	Advertised, Eng. News, Feb. 17 and 24.		
Mar. 10.	Court house,	Geneseo, N. Y.	Feb. 17
Mar. 10.	Dredging,	Oakland Harbor, Cal.	Feb. 3
	Advertised, Eng. News, Feb. 3 to 24.		
Mar. 10.	Hot water pump, etc.,	Hallettsville, Tex.	Feb. 24
Mar. 10.	Railroad grading (45 miles.),	Globe, Ariz.	Feb. 24
Mar. 10.	Bridge bonds ($8,000),	Fincastle, Va.	Feb. 24
Mar. 10.	Pipe sewer,	Spokane, Wash.	Feb. 24
Mar. 12.	Pile bridge (90 ft. long),	Omaha, Neb.	Feb. 24
Mar. 12.	Pipe sewer,	Napoleon, O.	Feb. 24
Mar. 14.	Grading, etc.,	Muncie, Ind.	Feb. 17
Mar. 15.	School building,	Spokane, Wash.	Feb. 17
Mar. 15.	**Steel submerged water pipe,**	**Portland, Ore.**	**Feb. 3**
	Advertised, Eng. News, Feb. 3 to Mar. 3.		
Mar. 15.	Electric light plant,	Sophia, Bulgaria	Feb. 10
Mar. 15.	Lighting (10 years),	Fort Smith, Ark.	Feb. 24
Mar. 15.	School building,	Wahpeton, N. Dak.	Feb. 24
Mar. 15.	Electric railway (6 miles),	Fort Smith, Ark.	Feb. 24
Mar. 15.	School building,	Dodge Center, Minn.	Feb. 24
Mar. 18.	Brick paving, etc.,	Cincinnati, O.	Feb. 24
Mar. 18.	River improvements,	Calcasieu River, La.	Feb. 17
Mar. 19.	Hospital building,	Uklah, Cal.	Feb. 24
Mar. 19.	24-in. sewer,	Lima, O.	Feb. 24
Mar. 20.	Water refunding bonds,	Fayetteville, Ark.	Feb. 24
	Advertised, Eng. News, Feb. 17 and 24.		Feb. 17
Mar. 21.	Court house,	Nashville, Ga.	
Mar. 21.	Repairing piers,	Muskegon, Mich.	Feb. 17
	Advertised, Eng. News, Feb. 24 to Mar. 17.		Feb. 24
Mar. 22.	Water franchise, etc.,	Utica, Ill.	
	Advertised, Eng. News, Feb. 24 and Mar. 3.		Feb. 24
Mar. 22.	Water-works,	Greenwood, S. C.	
	Advertised, Engineering News, Feb. 24.		Feb. 24
Mar. 22.	Electric light franchise,	Utica, Ill.	
	Advertised, Eng. News, Feb. 24 and Mar. 3.		Feb. 24
Mar. 22.	Electric lights,	Greenwood, S. C.	
	Advertised, Engineering News, Feb. 24.		Feb. 24
Mar. 23.	Stone and cement,	Fort Hancock, N. J.	
	Advertised, Eng. News, Feb. 24 to Mar. 17.		Feb. 24
Mar. 23.	Light-house dwelling,	Philadelphia, Pa.	
	Advertised, Eng. News, Feb. 24 and Mar. 3.		Feb. 24
Mar. 24.	Sewage precipitation tanks,	Providence, R. I.	Feb. 24
	Advertised, Eng. News, Feb. 24 to Mar. 17.		
Mar. 24.	Electric light plant,	Plum Island, N. Y.	Feb. 24
	Advertised, Eng. News, Feb. 24 to Mar. 17.		
Mar. 25.	School building,	Mondamin, Ia.	Feb. 17
Mar. 26.	Steam pumps (2),	St. Louis, Mo.	Feb. 24
	Advertised, Eng. News, Feb. 24 to Mar. 17.		
Mar. 28.	Water-works,	Holly Springs, Miss.	Feb. 17
	Advertised, Eng. News, Feb. 17 and 24.		
Mar. 28.	Electric light plant,	Holly Springs, Miss.	Feb. 17
	Advertised, Eng. News, Feb. 17 and 24.		
Apr. 1.	Water pipe (3,116 tons),	St. John, N. B.	Feb. 17
Apr. 1.	Boiler plant, heating, etc.,	Baltimore, Md.	Feb. 24
Apr. 2.	School building,	Brandon, Minn.	Feb. 3
Apr. 4.	Wharf, franchise,	Summerland, Cal.	Jan. 27
Apr. 4.	Sewer bonds ($65,000),	Santa Ana, Cal.	Feb. 24
Apr. 5.	County bridges,	Dakotah, Ia.	Feb. 17
Apr. 6.	River work, etc.,	Chicago, Ill.	Feb. 17
	Advertised, Eng. News, Feb. 17 to Mar. 10.		
Apr. 6.	Channel work, etc.,	Chicago, Ill.	Feb. 10
Apr. 7.	Bridge (150-ft. span),	Kalama, Wash.	Feb. 17
Apr. 15.	Lock and approaches,	New Orleans, La.	Feb. 17
	Advertised, Eng. News, Feb. 17 to Mar. 10.		
Apr. 30.	Town hall,	Singapore, S. S.	Jan. 13
May 1.	Plans for sewage disposal,	Belper, Eng.	Dec. 16
June 1.	Electric lighting (10 yrs.),	New Orleans, La.	Feb. 17
July 1.	Water power,	Madras India	Oct. 28
No date.	Water franchise,	St. Joseph, Mo.	Feb. 17
	Advertised, Eng. News, Feb. 17 to Mar. 3.		
No date.	Steel swing bridge,	Montreal, Que.	Feb. 24

RAILWAYS.

ASTORIA & COLUMBIA RIVER.—Reports state that track laying on this proposed railway from Seaside to Goble, Ore., a distance of about 60 miles, will be completed about March 1. Pres., A. B. Hammond, Missoula, Mont.; Ch. Engr., T. H. Curtis, Astoria, Ore.

ATLANTIC COAST LINE.—An extension of this line has just been completed from Elrod to Ashpole, N. C., a distance of 11 miles. It is reported that a further extension of 11 miles to Hub, N. C., will soon be made. F. Gardner, Ch. Engr., Wilmington, N. C.

BUFFALO, ROCHESTER & PITTSBURG.—Press reports state that this company will build an extension from Punxsutawney to Newcastle, Pa., a distance of 100 miles, at which place it is expected to make connections with Chicago over the tracks of the Northern Ohio R. R. to be extended from Akron, O., to Newcastle. Wm. E. Hoyt, Ch. Engr., Rochester, N. Y.

CANADIAN PACIFIC.—Sir William Van Horne, Pres., is quoted as saying that this company is now considering the construction of the Pipestone branch to the Moose Mountain district, a distance of 45 miles. P. A. Peterson, Ch. Engr., Montreal, Que.

CHOCTAW, OKLAHOMA & GULF.—Bids are asked, until March 1, for building an extension of this railway from Fort Reno to Bridgeport, Okla., a distance of 25 miles, requiring approximately 30 acres of grubbing, 330,000 cu. yds. of graduation, 655 lin. ft. of pile trestle and 2,380 lin. ft. of frame trestle. F. A. Molitor, Ch. Engr., South McAlester, Ind. Ter.

CLEVELAND & NEW CASTLE.—Geo. L. Bradbury, Vice-Pres. and Gen. Mgr. Lake Erie & Western R. R. Co., 623 Monadnock Block, Chicago, Ill., informs us that the survey corps is now in the field to locate a permanent line for this proposed railway from Cuyahoga Falls to Youngstown, O., via Kent, Ravenna and Niles, a distance of 75 miles. Contracts will be ready to let some time in April. J. H. Pirkey, Ch. Engr., Youngstown, O.

DELAWARE & HUDSON CANAL CO.—This company's petition to raise its tracks north of Union St., in Schenectady, stated in our issue of Feb. 3, was presented to the council on Feb. 14, and by it referred to the committee on railroads, with the understanding that a conference would be had with the authorities of this company and of the New York Central & Hudson River R. R. Co., regarding the abolition of all grade crossings in this city.

GILA VALLEY, GLOBE & NORTHERN.—The consent of the Apache Indians on the San Carlos Reservation has been obtained for the building of an extension of this line through that district from Geronimo, its present terminus, to Globe, Ariz. This consent was required by an act of Congress before the extension could be made. Bids are asked, until March 10, for 40 to 50 miles of grading for this extension. Pres., William Garland, 313 Stimson Bldg., Los Angeles, Cal.

LOS ANGELES & SUBURBAN.—Press reports state that this company, organized last year, is now getting ready to construct its proposed line, at a cost of about $300,000. It is said that a tunnel 600 ft. long will have to be built near South Pasadena, Cal. This is the same company which organized the Los Angeles & Pasadena Inter-Urban Land Co., in California, Aug. 28. Among those interested are: Jesse M. Thompson, Chicago, Ill.; Bradner W. Lee and Walter S. Maxwell, of Pasadena, Cal.

MANITOBA & NORTHWESTERN.—Press reports state that the Canadian Pacific Ry. Co. has purchased this 250-mile line of railway between Portage la Prairie and Yorkton, and that extensions through the valley of Saskatchewan to Peace River are contemplated. Pres., Andrew Allan, Montreal, Que.

NATCHEZ & GULF.—L. M. Dalgarn, Cy. Engr., Natchez, Miss., informs us that this company has been organized to build a railway from Natchez, through Lumberton, Miss., to make a connection with Gulfport over the Gulf & Ship Island R. R., of which S. S. Bullis, Gulfport, Miss., is general manager. Among those interested are: H. A. Camp, Lumberton; Wilmer H. Shields and A. G. Campbell, Natchez.

NATCHEZ, OPELOUSAS & GULF.—It is proposed to construct this railway from Natchez, Miss., to Crowley, La., via Vidalia, Palmetto, Washington and Opelousas. Col. Thomas H. Lewis, Opelousas, La., is said to be interested.

NATIONAL PARK, SILVER SPRING & HYATTSVILLE.—A bill has been introduced in the Maryland house of delegates providing for the incorporation of this company by Francis H. Smith, J. H. Ralston, Lewis H. Finney, John C. Davidson, H. Bradley Davidson and others. It is proposed to construct and operate a tramway or railway from a point on Rock Creek, in Montgomery county, at or near the boundary of the District of Columbia, through Montgomery and Prince George's counties, to Hyattsville, Md. The capital stock is to be not less than $50,000, which may be increased to $100,000. This line will extend from the Washington branch to the Metropolitan branch of the Baltimore & Ohio R. R.

RALEIGH & CAPE FEAR.—This company was incorporated in North Carolina, Feb. 12, with a capital stock of $200,000, to build a railway from a point between Cary and Garner, N. C., to the Cape Fear River, 35 miles distant. It is said that surveys have been made, the right of way obtained and the capital for construction secured. At first, only 16 miles will be built. The directors are: John A. Mills, T. B. Upchurch, Carthage, N. C.; W. J. Upchurch, Raleigh, N. C.; F. T. Ricks, F. O. Moring, K. B. Johnson and J. R. Chamberlain.

RICHMOND, PETERSBURG & CAROLINA.—Gen. Jas. S. Negley, Vice-Pres. and Gen. Mgr., 136 Liberty St., New York, informs us that the Colonial Construction Co., which is reported as having received the contract for building and equipping this railway, is the financial end of the railway company.

ROSENBERG, DAMON MOUND & GULF.—This company is being organized at Rosenberg, Tex., to build a railway from Rosenberg to Damon Mound, Tex., a distance of about 20 miles. Among those interested are: Noah Allen, Galveston, Tex.; Joseph Billings and Geo. B. Lang, Rosenberg; S. C. Brashear, Cuero, Tex.

SALUDA & JOHNSTON.—This company has been organized, with a capital stock of $35,000, according to reports, to build a railway from Saluda to Johnston, S. C. W. S. Allen, A. J. Crouse and D. F. Lewis, of Saluda, are said to be interested.

ST. LOUIS & OKLAHOMA CITY.—B. F. Johnston, St. Elmo, Ill., informs us that Johnston Bros. & Faught, of St. Elmo, Ill., who secured the contract to build this proposed railway from Sapulpa, Ind. Ter., to Oklahoma City, Okla., via Chandler, a distance of 110 miles, have let contracts to the following subcontractors: St. Joe Construction Co., St. Joseph, Mo.; John Burk, Charles Havens, A. G. Brown & Bro., and F. W. Johnson, of St. Elmo, Ill.; Warr & O'Hearn and D. J. McDonald, of Kansas City, Mo.; J. W. Powell, Osborne, Mo.; E. J. Maloney, Helena, Ark.; A. N. Spencer, Yukon, Ind. Ter.; D. R. Morris, Fort Smith, Ark.; Welsh Bros., St. Louis, Mo.; Jim Austin, Lovelace Bros., J. W. Maney & Co. Surveys have been made and the right of way obtained. Pres., C. J. Jones, Oklahoma City, Okla.; Ch. Engr., J. F. Hinkley, Sapulpa, Ind. Ter.

SAN FRANCISCO & SAN JOAQUIN VALLEY.—W. B. Storey, Jr., Engr. and Gen. Supt., 321 Market St., San Francisco, Cal., informs us that the proposed Franklin tunnel to be built by Foley Bros. & Muir, of St. Paul, Minn., will be about 5,700 ft. long, and is situated in Contra Costa county, Cal., about 30 miles from San Francisco. It will be put through a spur of the Coast Range and will connect the drainages of Rodeo Valley and Franklin Canon. The tunnel will be worked from the two faces, through a hard indurated clay, somewhat approaching slate, and should be completed within 17 months; timbering will probably be required throughout. Work is already in progress on approaches, and this should be finished by March 1.

VIRGINIA CENTRAL.—This company has been organized, according to reports, to construct a railway from the Potomac River through Rappahannock, Culpepper and Page counties. John F. Ryan and Geo. W. Settle are said to be interested.

WASHINGTON & FRANKLIN.—C. A. Vandevanter, Principal Asst. Engr., Western Maryland R. R., Baltimore, Md., informs us that the preliminary surveys have been completed for this proposed branch of the Western Maryland R. R., from Hagerstown, Md., to a point on the Baltimore and Cumberland Valley extension, near Altenwald, Pa. The line, as surveyed, is about 14.3 miles long, has a maximum grade of 37 ft. a mile, and effects a saving, over the Edgemont and Waynesboro route, of 9.84 miles. With the exception of two short trestles, which will be used in crossing ravines, occupied by public roads, there will be no bridging upon the line. The engineer corps is now engaged upon cross sections and topography, prior to making the final location. Before finally committing itself to a route, it is probable that the company will test the merits of two others, which seem to be practicable. The present road, via Edgemont and Waynesboro, has long stretches of 80-ft. grades, combined with very sharp curvature, so that the resistance upon the ascents is about equivalent to that of a 100-ft. grade upon a straight line. The advantage to be gained by the proposed cut-off is obvious.

STREET AND ELECTRIC RAILWAYS.

HAMPTON, N. H.—Press reports state that the directors of the Portsmouth & Dover R. R., a steam railway between Portsmouth and Dover, 11 miles, have decided to extend the line from Portsmouth to Hampton, via Newcastle, and to equip the same with electricity. It is also said that the Boston & Maine R. R. Co., which has assumed the lease of the line, has approved of the action. Hon. Frank Jones is interested.

EASTHAMPTON, MASS.—W. S. Loomis, Pres. Holyoke St. Ry. Co., Holyoke, Mass., informs us that nothing further has been done towards the construction of an electric railway from the terminus of the Holyoke St. Ry. to connect with the Northampton St. Ry. at Easthampton, than to appoint a committee to investigate.

NEW BEDFORD, MASS.—The New Bedford, Middleboro & Brockton St. Ry. Co. has been organized with a capital stock of $325,000, to build a railway from Clark's Point, in this city, to Bridgewater, where a connection will be made with Brockton, over the Brockton, Bridgewater & Taunton St. Ry., a total distance of 32½ miles. Among those interested are: Fred. C. Hinds, Newton, Mass.; Rufus A. Soule, Abbott P. Smith and Charles S. Mendell, of New Bedford; William M. Butler, Boston, Mass.; Augustus M. Bearse, of Middleboro, Mass., and Chas. H. Wilson, Boston.

AMESBURY, MASS.—The Amesbury & Hampton St. Ry. Co. has been organized with a capital stock of $30,000, according to reports, to build an electric railway between Amesbury and Seabrook, N. H. Among those interested are: E. R. Briggs and A. Scott, of Amesbury.

BROOKFIELD, MASS.—The selectmen of this town have granted a franchise to the Warren, Brookfield & Spencer St. Ry. Co. for a branch line from East Brookfield to North Brookfield. Pres., N. S. Myrick, Brookfield.

SOUTHBRIDGE, MASS.—Reports state that the selectmen have granted franchises to the Southbridge & Sturbridge St. Ry. Co. and the Southbridge & Charlton St. Ry. Co. C. D. Paige is president of the former, and the latter company is a new project in which I. L. Currier, of Worcester, is interested.

WEBSTER, MASS.—The selectmen granted a 50-year franchise to the Webster & Dudley Electric St. Ry. Co. Feb. 14 to build an electric railway in this town.

PATCHOGUE (L. I.), N. Y.—Reports state that the Patchogue & Port Jefferson Traction Co. has accepted a franchise granted to it by Brookhaven and this village. The company proposes to build a 15-mile electric line from Patchogue to Port Jefferson, on the Long Island Sound.

SYRACUSE, N. Y.—Press reports state that the Syracuse Rapid Transit Ry. Co. has decided to put in 90-lb. rails in all places where new rails would hereafter be needed; also that the 14th ward belt line will be double-tracked and other improvements made this spring. Pres., E. T. Perine, Syracuse.

NEWARK, N. J.—The Newark & South Orange St. Ry. Co. has applied to the board of works for permission to extend its tracks from the present terminus on Ferry St. to the tracks of the Consolidated Traction Co., on the Plank Road. B. M. Shanley, Gen. Mgr.; William Scheerer, Vice-Pres.

OCEAN CITY, N. J.—It is reported that the Ocean City association has decided to extend the electric railway in this place to Corson's Inlet. Pres., E. B. Lake.

BURLINGTON, N. J.—It is announced that a special meeting of the board of freeholders of Burlington county will be held on March 1, to consider the application of the Monmouth Traction Co. for right of way over several of the county roads. This is the company in which Colonel Edward Morrell is interested and which is destined to connect at Burlington by boat for Bristol with his Pennsylvania system and run across New Jersey to Keyport and connect by boat for New York.

BUENA VISTA, PA.—John P. McIntyre & Co., of McKeesport, Pa., was awarded the contract, by the Youghiogheny Valley Passenger Ry. Co., Feb. 19, for building an electric railway from Boston to this town, 5 miles, to connect with the Versailles line, from McKeesport.

EMAUS, PA.—The council of this place has granted the right of way to the Allentown & Emaus Electric St. Ry. Co. to build an electric line through the borough. Pres., Hugh E. Crilly.

WILMINGTON, DEL.—It is reported that an electric railway will be built in South Wilmington to connect the Lobdell Car Wheel Works on the Delaware River with the Wilmington City Ry. Co.'s line.

WASHINGTON, D. C.—Mr. Gaines, of Tennessee, has introduced a bill in the House authorizing the Metropolitan R. R. Co. to extend the lines of its underground electric railway from its present terminus to the intersection of Florida and Grant Aves., thence east along Grant Ave. to Sherman Ave., Whitney Ave., to New Hampshire Ave., to Brightwood Ave. Overhead wires may be used outside of the city limits. Pres., Major Geo. W. Harries, 2411 P St., N. W.

NORFOLK, VA.—Reports state that the Norfolk, Willoughby Spit & Old Point R. R. Co. is arranging to extend its electric line in this city about one mile. H. L. Page is said to be interested.

PORTSMOUTH, VA.—An electric line will soon be built from Portsmouth to Pig's Point, according to reports, by the Portsmouth, Pig Point & Newport News R. R. Co. R. H. Norfleet may be addressed.

COLUMBIA, S. C.—The Lexington Ry. Co. has been organized with a capital stock of $25,000, according to reports, to build an electric line in this city.

BLOSSBURG, ALA.—E. W. Tutwiler, Pres. Tutwiler Coke & Iron Co., informs us that the line of railway being built by this company is nearly completed.

JACKSON, MISS.—Our correspondent informs us that surveys have been made for an electric street railway and electric light plant to be built by the Jackson R. R. & Light Co., of which R. E. McKisson, of Cleveland, O., is president. Construction was to begin Feb. 20. Walter G. Kirkpatrick, Cy. Engr.

SOUTH BEND, IND.—Press reports state that Pittsburg capitalists have bought the South Bend & Mishawaka St. Ry. and the General Power & Quick Transit Co.'s four miles of track to Mishawaka, a total of 13 miles. It is said that much of the track will be replaced by 70-lb. rail, and that extensions and improvements will be made.

COLDWATER, MICH.—The common council has passed an ordinance granting to Messrs. Duncan and Condon, of Saginaw, a 30-year franchise to construct and operate an electric street car line in this city. The company is to begin the construction of the line within 60 days and have it completed within 18 months. The line will be extended to Coldwater Lake and will go through Kinderhook and East Gilead, to Orland, Ind. It is also contemplated to connect this city with Quincy, six miles east.

DETROIT, MICH.—Press reports state that the Rapid Ry. Co. has secured a permit from the war department to construct a bridge across Lake St. Clair, from Huron Point, Mich. The bridge will be about 6 miles long, and will be built of wood on the trestle plan, and is estimated to cost $400,000. Secy., Chas. M. Swift.

SAUGATUCK, MICH.—The Saugatuck, Douglas & Lake Shore Electric Ry. was granted a franchise, Feb. 16, to build a line connecting with the electric railway being built between Holland and Macatawa Park.

ROCKFORD, ILL.—E. M. Hopkins, Pres. Rock River Electric Ry. Co., 33 Monroe St., Chicago, Ill., informs us that the franchises and rights of way have all been obtained for this proposed electric line from Rockford to Dixon, via Elida, The Dells, Byron and Grand Detour, Ill., a distance of 40 miles. The road is to be constructed and operated the same as a steam railway, except the power used will be electricity obtained from a trolley. The line will be operated in connection with the Chicago Great Western Ry., connecting at Byron. Bonds are placed. Construction will probably be let to one contractor in the last part of March. Sanford Keely, Ch. Engr., Old Colony Bldg., Chicago, Ill.

STREATOR, ILL.—The La Salle County Ry. Co. has been incorporated, with a capital stock of $500,000, to build a street railway in La Salle, Cook, Will, Kendall, Kane and Dupage counties. The incorporators are, C. H. Rathbunn, W. H. Boys and W. H. Holcomb.

ST. PAUL, MINN.—The Twin City Rapid Transit Co. has been granted a franchise for construction of a line through Como Park, St. Paul, which will connect with the Como Ave. line, ordered by the council of Minneapolis, making a new interurban line. Work will commence at an early date so that the line may be in operation as soon as possible.

ST. LOUIS, MO.—The Southern Electric R. R. Co. has asked for a franchise to extend its line from the present terminus at 7th and Howard Sts., over Howard St. to the Natural Bridge Road.

FORT SMITH, ARK.—Bids are asked by the board of public works, until March 15, for the construction of six miles of electric street railways, and also for the electric lighting of this city for a period of 10 years. Chn., Tom Ben Garrett.

DENVER, COLO.—A bill has been introduced in the board of aldermen for an ordinance to permit the Denver City Cable Co. to change its cable system to an electric trolley system.

BUENOS AYRES, ARGENTINE.—It is reported that W. R. Cassels and John MacGee have applied to the government of this republic for a concession to build an electric railway from Buenos Ayres to the port of La Plata. A. Parcus & Co., of this city, also propose to construct an electric railway system here early this year.

BERLIN, GERMANY.—Press reports state that it has been decided to construct an underground railway, and that the city will assume the control of the construction. The system adopted is that of Siemens & Halske.

ELECTRIC LIGHT AND POWER.

AVOCA, N. Y.—We are informed that a proposition has been received from a company to establish a plant and light the streets with 50 32-c. p. incandescent lights. This plan will probably be adopted and the question voted upon March 15. Other bids are wanted on the same plan. P. H. Neill, Comr.; E. W. Bozard, Village Clk.; L. Pixley, Pres. Village.

BINGHAMTON, N. Y.—Thos. P. Nightingale, Utica, N. Y., has been awarded a contract for wiring the new city hall for electric lighting, at about $5,000. The wires will be placed in conduits.

DUNDEE, N. Y.—We are informed that the Dundee Electric Light, Heat & Power Co., which operates a plant in this city, will have specifications ready for new plants in three other towns by June 15. E. L. Bailey, Dundee, may be addressed.

FALCONER, N. Y.—The trustees are considering the proposition of the Westinghouse Electric Co. to light the streets with arc or incandescent lights.

FULTON, N. Y.—There is some discussion of annulling the contract with the Fulton Electric Light Co., unless it put in more machinery in order to furnish better service. I. C. Curtis, Village Clk., writes us that the plant is worn out and needs renewal. The company does not seem willing or able to keep more than 75% of the lights burning at one time. There is some talk of municipal ownership. There are 60 or 80 arc lights and 2,500 incandescent lights.

LE ROY, N. Y.—H. H. Falkner, Supt., writes us that this village is talking of taking control of the old plant formerly owned by the Le Roy Gas Light Co. It is operated by steam and has 50 arc lights. It is not thought that any improvements will be made.

LIMA, N. Y.—The trustees are reported to have made a contract with a company to furnish the town with 20 arc and 50 incandescent lights.

MIDDLEPORT, N. Y.—The question of lighting this place by electricity will be voted upon at the election March 15. E. A. Pearce, Clk.

MONTOUR FALLS, N. Y.—F. J. Dunham, Secy. Montour Falls Electric Light Co., writes us that the company wants to purchase a 60-HP. engine and 100-HP. boiler.

PLUM ISLAND, N. Y.—Bids are asked until March 24 for installing a plant at Plum Island, as stated in our advertising columns. Maj. S. S. Leach, U. S. Engr., New London, Conn.

DUBOIS, PA.—The Dubois Eleectric Light Co. is reported to have announced that it would at once extend its line to Falls Creek, two miles from here. It has let contracts for the erection of a new power house.

ERIE, PA.—Judge Walling has handed down a decision stating that the city may proceed with the construction of the State St. conduit for electric wires, the contract for which was awarded to V. D. Eichenland Aug. 23, 1897. Benj. E. Briggs, Cy. Engr., informs us that the city now expects to push the work early in the spring.

LANSDALE, PA.—This place voted Feb. 15 to purchase the plant and extend it, according to reports.

WASHINGTON, D. C.—H. P. Hill, Pres. Hill Lighting Co., has petitioned the district commissioners for permission to install a gas engine for operating an electric plant in the Hotel Johnson.

ELLICOTT CITY, MD.—Press reports state as follows: The council has closed a contract for five years with the Catonsville Ice, Light & Power Co. The contract begins June 1, and in the meantime the company proposes to build a power house in or near Ellicott City and have it completed by that time. The company proposes to furnish Woodstock College, St. Charles College, the Lage Hotel, Patapsco Heights, located in this city, and also Rock Hill College. It has purchased the plant of the Ellicott City Electric Light & Power Co., which has supplied Ellicott City for the past six years, and will continue to supply the city from the old plant until the new one is finished. There is a petition in circulation asking the county commissioners to aid the city in furnishing light on the public highways.

WISE, VA.—John E. Hale, Wise, proposes to build a plant, according to reports.

ROCKVILLE, MD.—The legislature will soon be petitioned to authorize this place to issue $10,500 in bonds for a municipal plant and water-works. Clk., J. L. Bennett.

MOUNT OLIVE, N. C.—J. D. Williams proposes to build a plant, according to reports.

GREENWOOD, S. C.—Bids are asked by the water commissioners until March 22 for constructing a plant and water-works, as stated in our advertising columns. Consult. Engr., Nisbet Wingfield, Augusta, Ga.

ALBANY, GA.—The question of issuing $25,000 in bonds for the purchase and extension of the plant, noted in our issue of Feb. 10, will be voted upon April 18. We are informed that the plant is owned by the Albany Edison Illuminating Co. Arc lights will be added.

GAINESVILLE, GA.—Chas. S. Webb and others are organizing a company to furnish this city with electricity, according to reports. Population (1890), 3,202.

MONROE, GA.—Bids are asked until March 1 for constructing a plant, to be operated by steam and to have 20 arc and 400 incandescent lights. A. B. Harris, Monroe, may be addressed.

THOMASTON, GA.—A contract will probably soon be made with a local company to supply this place with lights. J. R. Atwater, Mayor.

HUNTSVILLE, ALA.—C. E. Bost is reported to have been awarded a contract for constructing a new power house for the Huntsville Electric Co.

JACKSON, MISS.—We are informed that the construction of the plant of the Jackson R. R. & Light Co. was begun Feb. 20. There will be required 100 arc lights. Pres., R. E. McKisson, Mayor of Cleveland, O.

WEST POINT, MISS.—Bids are asked until March 8 for a plant with a 60-K-W. alternator, engine, pole line, etc. Mayor, C. L. Jordan; Engr., Walter G. Kirkpatrick, West Point and Jackson, Miss.

KNOXVILLE, TENN.—The Knoxville Water & Electric Power Co. has completed plans for a water power plant to generate electricity. The plant is to be located on the Holston River, about four miles above its mouth, and power is to be transmitted about 10 miles to Knoxville. The plans embrace a large stone dam, bridge, power house, etc. Horace Van Deventer, Secy.; Geo. S. Morison, Chief Engr.; Dr. Carey T. Hutchison, Elect. Engr.

MOUNT PLEASANT, TENN.—Ambrose Lanier is reported as interested in the company being organized to construct a plant here.

HAWESVILLE, KY.—The council is reported to have granted a franchise to C. H. Walls & Co.

BAINBRIDGE, O.—Wm. G. Moler, Consult. Engr., Springfield, O., is preparing the preliminary matter for the proposed plant and water-works for this place.

BUTLER, O.—The question of issuing $10,000 in bonds for a plant will be submitted to the voters at the next election. The town will require about 21 arc lights, besides a number of incandescent lights for residences. Isaac Hess writes us that nothing definite will be done until after the April election.

CINCINNATI, O.—The following contracts have been let by the Cincinnati Edison Electric Light Co. for its proposed plant at Charles and Plum Sts.: Stone work, James Finnigan; iron work, Schreiber & Son; brick work, James McGarvey, all of Cincinnati; total, $117,000. The building will be 251 × 106 ft., and the smokestack 200 ft. high, as stated in our issue of Jan. 27. Archs., Elzner & Anderson, 227 Main St.

CRESTLINE, O.—The construction of a new plant is reported as about to be begun.

ARCHBOLD, O.—A. Wadder & Son have submitted a light proposition to the council, according to reports.

HARTWELL, O.—Bids will probably soon be asked by the council light committee for furnishing 40 arc and 26 incandescent lights, according to reports.

CORUNNA, MICH.—Clarence Holley, owner of the light franchise, is reported to have awarded contracts for furnishing the machinery and for the labor for the new plant.

DETROIT, MICH.—Local papers state that Louis Kamper is preparing plans for an electric light plant for A. Jacobs & Co., 307 to 311 Gratiot Ave., to be erected in the rear of their premises on Elizabeth St. The building will be of brick, 50 × 70 ft., and two stories high. It will be of mill construction, the exterior being of pressed brick with cut stone trimmings.

FENTON, MICH.—The question of city ownership of the plant is being investigated by the committee, according to reports.

GRIDLEY, ILL.—W. H. Sillman, Pres. Bd. Trustees, writes us that a franchise was recently granted to J. F. Lusher and I. G. Haldridge, Gridley. The plant will be erected in 90 days.

UTICA, ILL.—Propositions are asked until March 22 for the purchase of a light and water franchise, as stated in our advertising columns. S. W. Reynolds, Chn. Water Com.

WAUSAU, WIS.—The council has appointed a committee of three to investigate the cost of a municipal plant. The finances of the city will not permit the erection of the plant at present, according to reports.

NEOLA, IA.—W. H. Killpack, Mayor, writes us that the election Feb. 14 resulted in favor of a plant. Bonds will be sold and the work let by contract.

SIOUX CITY, IA.—Alderman Erickson is urging the board to submit the question of a municipal plant to cost about $60,000 to the voters at the election March 28.

LINCOLN CENTER, KAN.—C. M. Heaton, Mayor, writes us that L. J. Rees, who owns a mill near the city, is considering the question of putting in a plant. There will be required 500 incandescent lights. J. M. Brunt, Chn. Com.

FORT SMITH, ARK.—Bids are asked March 15 for lighting the city with 90 arc lights of 2,000 c. p. for a period of 10 years, from July 15. The bids will be in conjunction with building an electric railway six miles long. Population, 17,192. T. B. Garrett, Chn. Bd. Pub. Affairs.

GONZALES, TEX.—Bids were asked by the Citizens' Electric Light & Power Co. until Feb. 23 for a plant of 1,800 lights to include a 125-HP. engine.

BENTONVILLE, ARK.—The construction of a plant is proposed, according to reports. Population (1890), 1,677. Jas. M. Bohart may give information.

SILVERTON, COLO.—It is reported that the question of building a plant will be decided about March 30; estimated cost, $10,000.

GOLDHILL, COLO.—Press reports state as follows: The Smith-Moffat syndicate has started excavating at Goldhill for the new plant to supply light and power for the mines at Bull Hill and Battle Mountain interests of the syndicate. The building will be brick with a steel superstructure. It will be 40 × 160 ft., built in sections, each section containing a 500-HP. boiler and engine, and an electric generating plant. As additional power is needed the number of sections will be increased. The plant is intended to operate all the machinery in the Victor, Vindicator Legal Tender, Granite and other holdings of the Golden Cycle Co., as well as furnishing light for all the mines controlled by the Smith-Moffat syndicate.

TOLEDO, ORE.—Press reports state that H. R. Sturtevant, Toledo, Ore., is considering the question of installing a plant to make use of the water power owned by him.

GRANT'S PASS, ORE.—The council is considering the question of constructing a plant, according to reports.

BAKERSFIELD, CAL.—The Kern-Rand Co. is reported to have filed a water right for the purpose of developing electric power. A ditch 12 ft. wide, 3 ft. deep and 1½ miles long, will be constructed to carry water from Kern River, at Onyx, to suitable place for power house.

LOS ANGELES, CAL.—Local papers state that the Edison Electric Co. has awarded a contract to the Alcatraz Co. to construct a complete conduit system throughout the business section of the city, at a cost of about $150,000.

SACRAMENTO, CAL.—The Sacramento Gas & Electric Light Co., it is reported, will make extensive improvements, one being the putting in at 6th and H Sts., of a 600-HP. engine, to supplement water power at Folsom. L. P. Dexter, Pres.; Albert Gallatin, Vice-Pres.

VENTURA, CAL.—The incandescent electric light plant will be rebuilt. It will likely be in operation by April. G. W. Chrisman, Mgr., and Clarence Chrisman are said to have let the contract for furnishing the machinery. The question of rebuilding the ice plant will be considered after the electric light plant is in operation.

FORT WRANGLE, ALASKA.—T. H. Moore, of California, is reported as interested in the proposed plant and water-works.

TORONTO, ONT.—The committee of the council is securing information and preliminary estimates for a municipal plant to cost about from $180,000 to $500,000. The mayor is opposed to the construction of a municipal plant. Alderman Wood, Chn., and City Engineer Rust may be addressed.

MEXICO, MEX.—Ex-Governor W. T. Thornton, Santa Fe, New Mexico, is in Mexico to secure water power and erect a plant for transmission of electricity to City of Mexico, according to reports. Estimated cost, $1,000,000.

NEW COMPANIES.—Montgomery Light & Power Co., Montgomery, Ala.; $750,000, with $50 paid in; T. E. Hambleton, Baltimore, Md.; C. G. Abercrombie, F. M. Billing, W. F. Vandiver, Montgomery.

United Gas, Heat & Power Co., Kansas City, Mo.; $250,000; G. W. Miller, 11 Pine St., New York; E. E. Eads, Boston, Mass.; R. I. Lilley, Cleveland, O.; Robert Ealden, C. B. Gartrell, Kansas City, Mo.

The Winnsboro Electric Light & Power Co., Winnsboro, Tex.; $3,000; R. G. Andrews, C. H. Morris, W. T. Whiteman, Manton W. Jones.

Hastings Light & Heat Co., Hastings, Me.; to manufacture coke, tar, gas and similar products; $10,000, with $3,000 paid in; Pres., Benjamin Thompson, Portland, Me.; Treas., Edward Woodman, Portland.

Buffalo Falls Power and Land Corporation, Buffalo, N. Y.; to deal in real estate in Erie county; $117,600; D. K. Ramey, Altoona, Pa.; C. F. McKenna, Pittsburg, Pa.; J. H. Prail, 37 Wall St., New York; J. N. Scatcherd, F. C. M. Lantz, J. R. Austin, Edmund Hayes, A. J. Holden, C. A. Pooley, Buffalo.

Sonoma Electric Light Co., Sonoma, Cal.; $10,000, with $3,250 paid in; F. Clewe, J. Tochetti, Fred T. Duhring, H. H. Granice, Robert Hall, Settinio Ciucci, Sonoma.

Rocky Mount Ice & Electric Light Co., Rocky Mount, N. C.; $25,000; to erect an ice factory, and later on the capital will be increased to $40,000 and an electric light plant will be installed; S. R. Carrington, L. H. Simmons, Durham, N. C.

Trenton Light & Power Co., of Trenton, Mo.; $30,000; C. A. Hoffman, E. M. Harber, W. O. Garvin.

Merced Falls Electric Power Co., Merced, Cal.; to furnish electric light, power and heat within Merced county; $100,000; James Ruddle, Snelling, Cal.; E. D. N. Lehe, Stockton, Cal.; James Peck, J. D. Bradley, Merced. The machinery for the plant has been purchased, and work will commence as soon as the preliminary matters are attended to.

Columbus Electric Co., Columbus, O.; $750,000; to furnish light and power; Irvin Butterworth, Walstein F. Douthirt, Chas. S. Ritter, Arthur R. Bliss, Irving M. Seliger.

Triumph Light, Heat & Power Co., Camden, N. J.; $20,000, with $1,000 paid in; Geo. A. Banks, R. Linwood Martin, Robt. B. Kee, Jas. W. Moore, Philadelphia, Pa.; Alfred J. Lucas, Gibbsboro, N. J.

Charleston Light & Water Co., Charleston, S. C.; $500,000, may be increased to $3,000,000; Samuel Lapham, Chas. R. Valk, W. H. Welch, Geo. I. Cunningham, Morris Israel. Mr. Valk writes us that nothing definite can be given yet.

New York Water & Electric Power Co., New York, N. Y.; $100,000; Eugene Treadwell, 22 William St.; Nathan Ottinger, Herman J. Katz, B. Franklin de Frece.

Atlanta Water Power Co., Atlanta, Ga.; $10,000; Henry B. Wilson, R. H. Smith, H. H. Perry.

BRIDGES.

BOSTON, MASS.—Wm. Jackson, Cy. Engr., informs us that the construction of the proposed West Boston bridge, to be 1,815 ft. long and 90 ft. wide, estimated to cost $1,000,000, is not yet authorized.

WOONSOCKET, R. I.—Frank H. Mills, Cy. Engr., informs us that the following bids were received Feb. 14 for constructing a steel bridge over the Peters River at Wood Ave., as advertised in Engineering News; Jonathan Battye, Chn. Com.:

New England Structural Co., East Everett, Mass.	$2,220
Toledo Bridge Co., Toledo, O.	2,275
Groton Bridge & Mfg. Co., Groton, N. Y.	2,300
Wrought Iron Bridge Co., Canton, O.	2,300
Edgemoor Bridge Co., Wilmington, Del.	2,332
Boston Bridge Works, Boston, Mass.	2,350
Canton Bridge Co., Canton, O.	2,400
New Jersey Steel & Iron Co., Trenton, N. J.	2,406
John E. Buddington, New Haven, Conn.	2,412
Pennsylvania Steel Co., Steelton, Pa.	2,447
Harrington, Robinson Co., Boston, Mass.	2,448
King Bridge Co., Cleveland, O.	2,489
Pittsburg Bridge Co., Pittsburg, Pa.	2,510
F. R. Long, New York, N. Y.	2,512
Youngstown Bridge Co., Youngstown, O.	2,545
Berlin Iron Bridge Co., East Berlin, Conn.	2,666

ALBANY, N. Y.—The council is said to favor the construction of a viaduct by the railway companies over the tracks at Third Ave.

BUFFALO, N. Y.—Plans are being prepared by the board of public works for constructing a lift bridge over the Blackwell Canal at Michigan St., estimated cost $75,000, and a bridge of increased dimensions to replace the old structure over Buffalo Creek, at Elk and Seneca Sts., to cost about $20,000.

HANCOCK, N. Y.—Reports state that a proposition to bond the town for $10,000 to construct a new iron bridge over the East Branch at Harvard was defeated.

ITHACA, N. Y.—It is proposed to construct a bridge 125 ft. long across Fall Creek on the extension of University Ave. H. Bergholtz, Gen. Mgr. Ithaca St. Ry. Co., may be addressed.

MOUNT VERNON, N. Y.—The board of railroad commissioners has reported favorably on an application of the city for the construction of iron bridges with stone abutments at Third Ave. and at 10th Ave. across the New York, New Haven & Hartford R. R. Co.'s tracks. Plans have not yet been decided upon. John S. Kenyon, Secy. Comrs., Albany, N. Y.

SYRACUSE, N. Y.—The following bids were received Feb. 28 by Geo. W. Aldridge, Supt. Pub. Wks., Albany, for constructing a lift bridge over the Erie Canal at Salina St.:

Wrought Iron Bridge Co., Canton, O.	$28,270
Pittsburg Bridge Co., Pittsburg, Pa.	29,999
Havana Bridge Works, Montour Falls, N. Y.	30,372
Kisk, Drisscoll & Co., Syracuse, N. Y.	28,895
Groton Bdge. & Mfg. Co., Groton, N. Y. (accepted).	28,052

NEWBURY, N. Y.—A bill has been introduced in the legislature asking for an appropriation to construct a bridge over Chambers Creek at this place.

UTICA, N. Y.—Senator White has introduced a bill authorizing the city to construct a bridge over Onondaga Creek.

UTICA, N. Y.—The following bids were received at Albany, Feb. 28, for constructing lift bridges at Broad St. and Whitesboro St.:

	Broad St.	Whitesboro St.
Havana Bridge Wks., Montour Falls, N.Y.	$19,480*	$18,807
Groton Bridge & Mfg. Co., Groton, N. Y.	19,104	*18,805
Pittsburg Bridge Co., Pittsburg, Pa.	21,345	21,150

*Accepted.

BAYONNE, N. J.—A joint committee of the council held a conference with the Jersey Central R. R. Co. officials, Feb. 17, to urge the construction of a bridge across the cut at East 30th St., which will probably be built in the spring.

ALLEGHENY, PA.—We are informed that bids will soon be asked for the construction of a steel bridge about 800 ft. long in Riverview Park. Robt. McAfee, Dir.

PITTSBURG, PA.—A proposition to appropriate $2,400 for the construction of a new bridge to replace the old wooden structure at Van Scoter St. will be voted upon at the next election.

SOBER, PA.—Reports state that an iron bridge is to be constructed over Peen's Creek. Jesse Cleaver, County Surv., Bellefonte.

WILMINGTON DEL.—It is reported that the Philadelphia, Wilmington & Delaware R. R. Co. has awarded a contract to the Pencoyd Iron Works, 261 South 4th St., Philadelphia, for constructing an iron bridge 258 ft. long over the Patuxent River. J. L. Smith, Supt. Bridges.

WASHINGTON, D. C.—The Senate district committee has asked for $50,000 to commence the construction of the Massachusetts Ave. bridge over Rock Creek. The district commissioners are in favor of the appropriation.

CUMBERLAND, MD.—The iron bridge crossing the Potomac at this place, which was recently repaired, has been condemned and a new structure has been recommended to be constructed at once, according to reports.

FINCASTLE, VA.—Bids are asked by the board of supervisors until March 10 for the purchase of $8,000 in 5% bridge bonds.

ATLANTA, GA.—Our correspondent informs us that this city is about to ask for bids to construct the proposed Mitchell St. viaduct. R. M. Clayton, Cy. Engr.

BROWNSVILLE, TENN.—It is reported that the county commissioners have authorized the construction of a bridge across the Peace River one mile west of here.

CLEVELAND, O.—Local papers state that a meeting was held Feb. 15 between the council and officials of the Cleveland, Cincinnati, Chicago & St. Louis R. R., at which it was decided to construct new bridges over the tracks at South Water St. and below Columbus St.

COLUMBUS, O.—The county commissioners have presented petitions to the legislature for the construction of bridges over Big Walnut Creek and East Broad St., to cost $25,000, and on the Groveport Pike, estimated cost, $25,000.

TERRE HAUTE, IND.—Reports state that the Evansville & Terre Haute R. R. Co. has agreed to construct two viaducts over its tracks in this city, and that the council is soon to take action toward their erection.

DETROIT, MICH.—Reports state that Detroit, Lake Shore & Mt. Clemens Electric Ry. Co. has secured permission to construct a bridge 150 ft. long, having two spans, in order to extend its tracks, across the north branch of the St. Clair River, near Harsens Island.

HOUGHTON, MICH.—The county commissioners decided, Feb. 15, to replace the wooden draw on the Portage Lake bridge by a new steel structure, to cost about $15,000, which will be shared by the county and South Shore R. R.

GRAND RAPIDS, MICH.—A project by J. E. Rice to construct a bridge over the Grand River at North Park is being considered, according to reports.

SAGINAW, MICH.—Alderman Smith is reported to have presented a resolution authorizing H. E. Terry, Cy. Engr., to prepare plans for a new bridge across the river at Genesee Ave.

STAPLES, MINN.—A contract was awarded to S. W. Hewitt & Co., Minneapolis, Feb. 7, at $1,797, to construct a bridge 300 ft. long and 20 ft. wide, on stone foundation, over the Crow Wing River, four miles from here, according to reports.

EAU CLAIRE, WIS.—Reports state that the Chicago, St. Paul, Minneapolis & Omaha Ry. Co. will construct a new bridge across the Eau Claire River. C. Beard, Acting Supt., Eau Claire.

CEDAR RAPIDS, IA.—E. P. Boynton, Cy. Engr., informs us that the following bids were received Feb. 18 for constructing a footwalk on the Burlington, Cedar Rapids & Northern Ry. bridge in this city, to be 540 ft. long, 6 ft. wide, on 21 steel brackets: N. M. Stark & Co., Des Moines, Ia., $2,050; Lafayette Bridge Co., Lafayette, Ind., $2,717; J. T. Carmody, Cedar Rapids, Ia., $2,498; B. F. Parks, Cedar Rapids, Ia., $2,142; C. J. Newcomb, Cedar Rapids, Ia., $2,300; Geo. E. King Bridge Co., Des Moines (accepted), $1,987.

OMAHA, NEB.—Bids are asked until March 12 for constructing an 80 or 100-ft. pile bridge. G. W. Ellsworth, County Clk.

VERMILLION, S. DAK.—A contract was awarded to H. G. Taylor, Meckling, S. Dak., Feb. 14, at $210, for constructing a bridge in Meckling township. Fred Heglin, County Clk.

ST. LOUIS, MO.—The board of officers of engineers, St. Louis, Mo., gave a hearing, Feb. 17, at the Southern Hotel, upon plans for the bridge to be built across the Mississippi River between St. Louis and St. Clair county, Ill.

FORT RENO, OKLA.—Bids are asked by the Choctaw, Oklahoma & Gulf R. R. Co., until March 1, for constructing 665 lin. ft. of pine trestle, containing about 5,320 lin. ft. of piling and 80,000 ft. B. M. of pine; and also for 2,380 lin. ft. of frame trestle, containing 520,000 ft. B. M. of pine. F. A. Molitor, Ch. Engr. South McAlester, Ind. Ter.

DENVER, COLO.—Amended plans have been accepted by the board of public works for the construction of the 14th St. viaduct; estimated cost, $324,651.

GEORGETOWN, COLO.—Bids are asked until March 4 for constructing a low truss iron bridge, with an 80-ft. span, resting on iron tubes 3 ft. in diameter, over Clear Creek, at Floyd Hill. David Meyers, County Clk.

SPOKANE, WASH.—Bids are asked for constructing a bridge 200 ft. long over the Kettle River, estimated cost $1,500, according to reports.

MONTREAL, QUE.—Bids are asked, according to local papers, for constructing a steel swing bridge, 138 ft. long and 37 ft. wide, over the canal at Seigneurs St.——Plans have been prepared by Stuart Howard, Road Dept., for a proposed swing bridge over the canal at Atwater Ave., with a span of 243 ft. by 38 ft.; estimated cost, about $75,000.

ST. THOMAS, ONT.—Bids are asked until March 2 for constructing a Howe truss bridge, 228 ft. long, with pile piers and abutments, over the Thames River, on the Coyne Road. James A. Bell, County Engr., Elgin.

BUILDINGS.

ARLINGTON, MASS.—It is reported that Walter Crosby, Edward S. Farmer and Geo. I. Doe have been appointed a committee to select plans for a new brick and stone school building, to cost about $50,000. A report will be made at the March town meeting.

HOLYOKE, MASS.—Geoffrion, Laclair & Co. have been awarded the contract for erecting the new Pelland Block at Bridge and Cabot Sts.——Reports state that H. M. Senior will erect a 5-story brick office building at High and Appleton Sts. in the spring.

PITTSFIELD, MASS.—The Puritan Bank Block, at North and Sumner Sts., was burned on Feb. 17, causing a reported loss of $100,000; insurance, about $60,000.

WORCESTER, MASS.—The Bijou Theatre Building on Front St. was destroyed by fire, Feb. 18, causing a loss of about $50,000. It is said that R. C. Taylor, of Worcester, who owned the building, will probably rebuild.

GREENWICH, CONN.—Reports state that contracts will soon be awarded for the building of a $30,000 residence for W. J. Smith on Mead's Point; also for a stable to cost $8,000. Arch., F. G. C. Smith, Greenwich.

NEW HAVEN, CONN.—A fire in this city, Feb. 19, destroyed the warehouse of the Bowditch Furniture Co., causing a reported loss of $55,000; fully insured.——Plans are being prepared for alterations to a college society building to cost about $25,000. Arch., Grosvenor Atterbury, 111 Fifth Ave., New York.

ALBANY, N. Y.—The contract for building the new Albany hospital has been awarded to E. Broderick & Son, of Troy, N. Y., at $191,300.

BROOKLYN, N. Y.—Bids will soon be asked, according to reports, for erecting two 3-story store and flat buildings at Van Voorhis St. and Central Ave., for A. Mertz, 1403 Greene Ave., to cost about $150,000. Arch., W. Willis, 17 Troutman St.

BUFFALO, N. Y.—The following were the lowest bidders for work on the new German hospital building to be erected on Jefferson St.: John Lannen, for mason work, at $13,375; Jacob Jaeckle & Co., for carpenter work, at $4,684; Chas. F. Ernst, for metal work, at $5,097; Buffalo Expanded Metal Construction Co., for floor and partition construction, at $5,450.——David Tucker will remodel his 6-story office building into a hotel, at a cost of about $25,000.

COLLINS, N. Y.—Plans are being prepared for four 3-story brick buildings for the Collins State Hospital, to cost $80,000. Arch., Aug. C. Esenwein, 707 Mooney Bldg., Buffalo.

LONG ISLAND CITY (L. I.), N. Y.—The contract for fireproofing the new court house building to be erected at this place has been awarded to the Central Fireproofing Co., 874 Broadway, New York. J. T. Woodruff, General Contractor, Long Island City; Seaman & Pittman, Archs., Union Square, New York.

NEW YORK, N. Y.—Plans have been filed by Ida E. Moore, 231 West 113th St., for four 5-story brick flat buildings on 111th St., east of 7th Ave., to cost $192,000. Arch., C. A. Millner, 81 East 125th St.; by Louis K. Ungrich et al, for buildings on 153d and 154th Sts., east of Amsterdam Ave., to cost $128,000. Archs., Neville & Bagge, 217 West 125th St.; by Jacob Levy, 122 Canal St., for two 6-story brick flat and store buildings, at 520 and 522 East 13th St., to cost $50,000. Archs., Horenburger & Straub, 122 Bowery; by Alexander McDowell, 388 Manhattan Ave., for four 5-story brick flat and store buildings at 8th Ave. and 127th St., to cost $98,000. Arch., G. A. Schellenger, 128 Broadway; by Jobst Hoffmann, Owner and Arch., 247 West 116th St., for two 5-story brick flat and store buildings, at 60 and 62 East 115th St., to cost $42,000.——The following bids were received by the supervising architect, Washington, D. C., Feb. 19, for elevator screens, etc., for the U. S. Appraiser's warehouse in this city:

Wm. H. Ellis, New York	$31,450	*80 days
Snead's Co. Iron Works, New York	27,970	Apr. 1
Hecla Iron Works, New York	29,844	"
Levering & Garrigues, New York	44,720	"
A. B. & W. T. Westervelt, New York	56,350	*150 days

*Working days.

KINGSTON, N. Y.—Preliminary plans have been prepared, according to reports, for a bank building for the First National Bank of Rondout, to be erected in this village at a cost of about $30,000. Arch., A. C. Longyear, 126 Liberty St., New York.

JERSEY CITY, N. J.—School Superintendent Snyder and Director Mersheimer have asked the board of finance for an appropriation of $200,000 for the erection of a new high school building in this city.

LANCASTER, PA.—It is reported that preliminary plans are now being prepared for a large science building to be built here for the Franklin and Marshall College.

OIL CITY, PA.—At an election held here Feb. 15 it was voted to issue $45,000 in bonds for the erection of new school buildings.

PHILADELPHIA, PA.—Bids are asked until March 23 for erecting a dwelling for the Maurice River Range light station. Lieut.-Col. W. A. Jones, U. S. Engrs., Post Office Bldg., Philadelphia.——The freight station of the Philadelphia & Reading R. R., at Front and Noble Sts., was destroyed by fire Feb. 16, causing an estimated loss of $100,000.——Allen B. Rorke, Bourse Bldg., was awarded the contract by the public buildings commission, Feb. 18, for stone, carpenter and metal work on the city hall building for the coming year, at $503,130. Samuel C. Perkins, Pres. Com.

PITTSBURG, PA.—A fire in this city, Feb. 18, destroyed the 9-story building of the National Wall Paper Co., on Penn Ave., near 9th St., causing an estimated loss of $125,000. Preliminary plans are being prepared for a passenger station to be built in Pittsburg for the Pennsylvania R. R. Co. Arch., D. H. Burnham & Co., Chicago, Ill.

WASHINGTON, D. C.—Our correspondent informs us that plans are being prepared for an extensive addition to the Hotel Raleigh on 12th St. Arch., H. J. Hardenbergh, 10 West 23d St., New York.——Plans are being prepared for an 8-story brick and terra cotta apartment building, 165 × 141 ft., to be erected on 20th St., between M and N Sts., N. W., by Christopher Henrich. Arch., Appleton P. Clarke, Jr.

BALTIMORE, MD.—Bids are asked by the court house commission, City Hall, until April 1, for installing a boiler plant and ventilating apparatus, water supply system, etc., for the new court house to be erected in this city.

RICHMOND, VA.—Bids are asked by the American Baptist Home Mission Society, 111 5th Ave., New York, until March 5, for erecting the buildings for the Virginia Union University at Richmond. Arch., John H. Coxhead, 824 Ellicott Square, Buffalo, N. Y., and 70 5th Ave., New York.

BUCKHANNON, W. VA.—Reports state that plans have been prepared for a new court house for Upshur county; estimated cost, $75,000.

TAMPA, FLA.—S. S. Leonard, of Jacksonville, Fla., has been awarded the contract for erecting the new cathedral; estimated cost, $100,000.

TROY, ALA.—Plans have been accepted for the new Pike county court house, to cost about $10,000. Arch., R. L. Jones, Atlanta, Ga.

CINCINNATI, O.—Bids are asked by the board of administration, until March 2, for the erection of a new market house on Pearl St., between Broadway and Sycamore Sts. Pres., Aug. Herrmann; Archs., Samuel Hannaford & Sons, Hulbert Block.

BELVIDERE, ILL.—It is reported that plans have been accepted for the new opera house to be built in this city by W. H. Derthick, at a cost of $25,000. Archs., Bradley & Carpenter, Rockford, Ill.

CHICAGO, ILL.—Reports state that the Mallers and Gaff buildings, at La Salle and Quincy Sts., will be reconstructed.——It is also said that the old City Hotel property, at State and Lake Sts., owned by the estate of S. Lester Burton, will be improved at a cost of $50,000, after plans by Frost & Granger.

CHICAGO, ILL.—Bids are asked by the board of education, 1110 Schiller Bldg., 109 Randolph St., until March 4, for masonry work, structural iron, terra cotta, etc., for the new Farren school addition, on Wabash Ave., near 51st St.

MILWAUKEE, WIS.—Bids are asked by the supervising architect, Washington, D. C., until March 8, for erecting a boiler plant, low-pressure exhaust steam heating mechanical ventilating apparatus, cold and hot water supply system, etc., in the U. S. Building in this city.——The H. N. Leighton Co., 213 South 6th St., Minneapolis, Minn., has been awarded the contract for erecting the superstructure of the Milwaukee station, to cost about $130,000. Work will begin about March 1. Arch., Chas. S. Frost, Woman's Temple, Chicago, Ill.

DODGE CENTER, MINN.—Bids are asked, until March 15, for erecting a school building. Archs., Orff & Guilbert, Minneapolis, Minn.; Clk., M. R. Dresbach.

SOUTH OMAHA, NEB.—The following bids were received by the supervising architect, Washington, D. C., Feb. 18, for the erection and completion, except the heating apparatus, of the post-office building in this city:

		Time.
C. A. Moses, Chicago, Ill.	$63,930	12 mos.
Thos. Lonergan & Co., Chicago, Ill.	85,950	11 "
Tharnahaw & Golden, Chicago, Ill.	67,700	12 "
C. W. Gindele Co., Chicago, Ill.	63,000	12 "
Shane & Jackson, Omaha, Neb.	75,435	12 "
A. W. Phelps & Son, Omaha, Neb	74,433	12 "
Peter Soderborg, Omaha, Neb.	70,696	12 "
C. E. H. Campbell, Council Bluffs, Ia.	73,277	12 "
Counsman & Givin, Omaha, Neb	75,750	12 "
Mahoney & Wakefield, Omaha, Neb	69,159	12 "
G.W.Atkinson & Son, Colo. Springs, Colo.	63,900	12 "
L. L. Leach & Son, Chicago, Ill.	69,873	12 "
B. J. Jobsh, Omaha, Neb.	69,669	12 "
McDonald & Bock, South Omaha	71,975	12 "
Hamilton Bros., Omaha, Neb.	64,180	330 dys.

FARGO, N. DAK.—It is reported that a $50,000 building will be erected in this city by the Scottish Rite Masons of North Dakota. George H. Keys, of Ellendale, and Sandy Mather, of Grand Forks, are said to be interested.

WAHPETON, N. DAK.—Bids are asked by the board of education, until March 15, for erecting a brick school building. Arch., Schuler Bros., Wahpeton.

MISSOULA, MONT.—George Dildine, of Missoula, has been awarded the contract for constructing the new university building at $51,679. The contract for heating and plumbing was awarded to the Missoula Mercantile Co., at $7,800.

LITTLE ROCK, ARK.—The following bids were received by the supervising architect, Washington, D. C., Feb. 16, for erecting an electric passenger elevator in the U. S. Building in this city: Otis Bros. & Co., New York, $3,300, in 60 days; Crane Elevator Co., Chicago, Ill., $3,250, 60 days; Henry Vogt Machine Co., Louisville, Ky., $2,354, 75 days.

HALLETSVILLE, TEX.—Bids are asked until March 10 for a 70-HP. first class tubular boiler, with fittings, and a hot water pump, etc. W. A. Mair, Cy. Clk.

NEW BRAUNFELS, TEX.—R. Richter, Clk. of Comal county, New Braunfels, informs us that the following bids were received, Feb. 12, for building the new county court house; (a) for brick, (b) for rock or stone:

	(a)	(b)
Hugo Schott, Kerrville, Tex.	$41,700	$55,800
Emmis & Abright, Dallas, Tex.	33,675	48,000
Fischer & Lambie, Austin, Tex.(accepted).	33,333	36,000
Henry Clemens, San Antonio, Tex.	36,287	42,087
Texas Construction Co., Fort Worth, Tex.	35,162	....

PUEBLO, COLO.—The following bids were received by the supervising architect, Washington, D. C., Feb. 19, for erecting a hydraulic passenger elevator in the U. S. Building in Pueblo:

		Time.
Otis Bros. & Co., New York.	$4,670	90 dys.
Crane Elevator Co., Chicago, Ill.	3,745	90 "
Central Iron Works, Quincy, Ill.	3,250	120 "
Morse, Williams & Co., Philadelphia, Pa.	4,981	100 "
Gardner Elevator Co., Detroit, Mich.	3,575	3 mos.

UKIAH, CAL.—Plans and specifications are asked by the managers of the Mendocino State Hospital, until March 19, for an administration building to be erected near Ukich, at a cost of $58,000. Secy., W. W. Cunningham, Ukiah.

PHOENIX, ARIZ.—Anderson & Locke have been awarded the contract for the foundation and rock work for the new opera house to be erected here by S. E. Patton, at a cost of about $40,000. The brick work has been let to O'Connor & Cottrell.

WATER-WORKS.

AUBURN, ME.—We are informed that plans and estimates for a proposed storage reservoir of 10,000,000 gallons have been submitted to the commissioners, who now have the data under consideration. Probably no work will be done before the spring of 1899. Des. Engr., H. S. Ferguson, Lewiston, Me.; Supt., F. E. Bisbee.

LUBEC, ME.—It is reported that definite action in regard to the proposed works will soon be taken.

CAMBRIDGE, MASS.—The council has voted to ask for bids for furnishing water pipe, etc. Councilmen Brooks and Perkins may be addressed.

NEWTON, MASS.—The council has voted to appropriate $14,000 for the purchase of pipe and castings. Supt., H. N. Hyde.

SWAMPSCOTT, MASS.—Press reports state as follows: At a special town meeting, Feb. 14, to consider the question of a future water supply for the town, two reports were submitted. One favored the purchase of the works of the Marblehead Water Co., at a cost not to exceed $100,000, and the other report was opposed to the purchase of the works unless more favorable terms were obtained. The latter report was adopted. Capt. E. F. Small, Chn. Com., and Geo. Albree may be addressed.

WESTBORO, MASS.—The question of securing an increased water supply, as recommended by the superintendent, will probably be considered March 7. J. L. Brigham, Pres.; J. B. Putnam, Supt.

CANANDAIGUA, N. Y.—D. M. Hulse, Pres., writes us that the proposed increased power for the works, noted in our issue of last week, will cost from $10,000 to $15,000.

KINGSTON, N. Y.—O. C. Longyear, Supt., writes us that it is proposed to extend the mains in the spring, to clean and improve the old reservoir, rebuild dam at Coopers Lake reservoir, etc., set 18 and 20-in. hydrants.

LARCHMONT, N. Y.—It is reported that the Larchmont Water Co. is preparing to build a new reservoir, to cost about $20,000. Supt., W. H. Campbell.

LOCKPORT, N. Y.—Press reports state as follows: The council voted, Feb. 15, to let the contract to the Niagara, Lockport & Ontario Power Co. for a water supply of 15,000,000 gallons daily for $50,000 a year, to be paid as soon as the water shall be furnished from the proposed power canal from Niagara River. The resolution to submit the question to the people was reconsidered and then defeated. The Power Company is not required to give any bond. For further information see our issue of last week.

BEDFORD, PA.—This place voted, Feb. 15, to issue $16,500 of 4% 20-year bonds for a new reservoir of 28,000,000 gallons capacity.

BRADDOCK, PA.—We are informed that the following bids were received, Feb. 17, for constructing a 12,000,000-gallon reservoir, as advertised in Engineering News. Wm. Howat, Supt. Pub. Wks.:

C. M. Driver, Pittsburg, Pa.	$118,500
R. A. Malone, Lancaster, Pa.	103,000
Jonathan Clarke & Sons, Chicago, Ill.	99,500
Finn & Vipond Construction Co., Altoona, Pa.	98,346
Chandley Bros. & Co., Beaver Falls, Pa.	96,550
Sweeney & Houston, Pittsburg, Pa.	87,946
J. C. McSpadden, Pittsburg, Pa.	87,497
Jos. Gianini, Pittsburg, Pa.	79,963
T. A. Gillespie Co., Pittsburg, Pa. (accepted).	79,500

CAMBRIDGE SPRINGS, PA.—M. H. Luse, Clk., writes us that this place voted, Feb. 15, almost unanimously, for issuing $20,000 in bonds for works. Nothing further has been done. Population, 2,000.

HELLERTOWN, PA.—At the election, Feb. 15, this place voted to issue $20,000 in bonds for works. F. F. Allen, Ch. Burgess.

PARNASSUS, PA.—We are informed that this place voted, Feb. 15, 138 to 22 in favor of issuing $17,000 in bonds for works. Details have not been decided upon, but work will be begun as soon as possible. W. J. Stewart, Pres. Council.; E. D. Crel, Borough Clk.

WARREN, PA.—The question of municipal works is being considered. Population (1890), 4,332.

BOONSBORO, MD.—The question of having works built by H. G. Frederick, Millersburg, Pa., is being considered. Burgess Brinning and C. E. Koogle, Clk., may be addressed. The supply will be secured from springs.

LAUREL, MD.—A bill has been introduced in the legislature for the incorporation of the Laurel Water Co. Chas. Phelps, Mayor.

OCEAN CITY, MD.—This place is reported to have asked for a new charter and authority to issue $25,000 in bonds for works and a sewerage system.

ROCKVILLE, MD.—The legislature will be asked to grant this place authority to issue $10,500 in bonds for municipal works and a light plant, according to reports. Jos. Reading, Mayor.

PETERSBURG, VA.—N. T. Patteson, Jr., Chn., writes us that the proposition to increase the supply from another source has been laid over for the present. Contracts for furnishing 1,000 meters have been let, as stated under Contract Prices. Population, 25,000. T. R. Dunn, Cy. Engr.

REIDSVILLE, N. C.—The question of building works and a sewerage system is being considered. Population, 5,000. A. J. Ellington and R. T. Williams, Mayor, may be addressed.

CHARLESTON, S. C.—The Charleston Light & Water Co. has been incorporated, with a capital stock of $500,000, with the privilege of increasing it to $3,000,000, by Samuel Lapham, Chas. R. Valk, W. H. Welch, A. G. Rhett, H. F. Bremer, Geo. I. Cunningham and others. Mr. Cunningham was, in 1897, president of the Charleston Water-Works Co.

GREENWOOD, S. C.—Bids are asked until March 22 for constructing works and a light plant, as described in our advertising columns. B. M. Hoys, Chn. Com.; Consult. Engr., Nisbet Wingfield, Augusta, Ga.

ELBERTON, GA.—G. J. Baldwin, Savannah, Ga., has been awarded the contract for building works to cost about $25,000, according to reports. The question of ratifying the contract will be voted upon by the citizens in about 60 days. W. B. Humes, Clk., and McAlpin Arnold, T. C. Van Duzer and D. H. Brown may be addressed.

MACON, GA.—We are informed that the receiving of bids for hauling 15,000 tons of water pipe set for Feb. 14 has been postponed.

TAMPA, FLA.—It is reported that the council will issue $80,000 in bonds for municipal works for Tampa and West Tampa.

CRYSTAL SPRINGS, MISS.—This place is reported to have voted, Feb. 10, for works.

OCEAN SPRINGS, MISS.—J. J. Kuhn, New Orleans, La., and Ocean Springs, is reported to have purchased the Lewis Water-Works for $5,000.

BAINBRIDGE, O.—Wm. G. Moler, Consult. Engr., Springfield, O., is preparing the preliminary matters for the proposed works and light plant for this place.

CHICAGO, ILL.—Chas. S. Sturtevant, Consult. Engr., 623 North Main St., St. Louis, Mo., and Keosauqua, Ia., informs us that the plans for the works to cost $25,000 are not yet ready.

CINCINNATI, O.—The actual work of construction of the new water-works will begin, it is expected, on April 1. Plans and specifications are being prepared and the commissioners will be ready to advertise for bids within the next two weeks, for the construction of the intake, the tunnel under the Ohio River and the pump pit at California, which is all one contract.

CLEVELAND, O.—Geo. R. Warden, Dir. Pub. Wks., has recommended that the contract for furnishing the water pipe for this year be awarded to the Addyston Pipe & Steel Co., Cincinnati, O., at $106,068. About 10,000 tons will be required.

COLUMBUS, O.—The Columbus Water Co. has been incorporated, with a capital stock of $100,000, to build new works for this city. Incorporators, A. D. Heffner, P. H. Bruck, H. J. Booth and John F. Barry.——Local papers state that a company is also being organized to build a dam to supply this city with a new supply.——A paper states that the water question will probably be submitted to the people.

ANGOLA, IND.—P. A. Croxton, Treas. National Mill, Water & Light Co., writes us that no new work is being done at present on the works, on account of the incorporation of the above company, as noted in our issue of last week. The various systems were simply consolidated.

AUBURN, IND.—Burton J. Ashley, 1560 Old Colony Bldg., Chicago, Ill., has been retained as consulting engineer to the town board, and resident engineer in preparing plans and specifications, attendance at the letting and in the inspection of the completed works the village is about to construct. Population, 3,500. J. J. Van Auken, Cy. Engr.

ARGOS, IND.—Henry R. Worthington, 185 Van Buren St., Chicago, and New York, has been awarded the contract for furnishing a 500,000-gallon pump for the works in this place.

FORT WAYNE, IND.—Bids are asked until March 3 for erecting a brick and stone pumping station and boiler house. Arch., Alfred Grindle, Bass Block, Fort Wayne; Clk., R. J. McDonald.

MARSHALL, MICH.—It is proposed to extend about two miles of 6-in. main this season, according to reports. E. H. Grant, Mayor.

ABINGTON, ILL.—C. F. Morser, Mayor, writes us that there is only agitation for works at present. No definite action has yet been taken. A local paper states that R. B. Halligan, Treas., and H. A. Cleveland, Supt., Phoenix Construction Co., Chicago, wish to put in works.

DUQUOIN, ILL.—H. A. Keith & Co., Redfield Ave. and Stein St., Chicago, Ill., have been awarded the contract for constructing works, at $13,468, according to reports.

GRIDLEY, ILL.—The question of building works is reported as being considered. W. H. Sillman, Pres. Bd. Trustees.

PORT BYRON, ILL.—A. H. Wendt, Treas. Port Byron Pearl Button & Improvement Co., noted as incorporated in our issue of last week, writes us that no steps have yet been taken towards works and a light plant, but probably will later, the plant will be built this summer.

SPRINGFIELD, ILL.—Henry R. Worthington, New York, and 185 Van Buren St., Chicago, has been awarded the contract for furnishing an 8,000,000-gallon vertical triple expansion pumping engine.

UTICA, ILL.—Propositions for the purchase of a water and light franchise will be received until March 22, as stated in our advertising columns. S. W. Reynolds, Chn. Com.

BEDFORD, IA.—The construction of works is being considered, according to reports.

MOUNT PLEASANT, IA.—It is proposed to connect the pumping station of the Mount Pleasant Water-Works Co. with the light plant, at a cost of $6,500. A 2,700-bbl. reservoir will be built, according to reports.

WICHITA, KAN.—It is reported that this place held an election Feb. 21 to vote on the question of municipal works to cost about $75,000.

FARGO, N. DAK.—The council is reported to have decided to install a new pump. Supt., C. B. Thimmens.

ST. LOUIS, MO.—The Crystal Water Co.'s works, Channing and Franklin Aves., was damaged to the extent of about $20,000 by fire Feb. 11. Vice-Pres., Hamilton Daughaday.——The St. Louis Water Purifying Co. has been incorporated with a capital stock of $150,000, of which $75,000 is paid in. James M. Nelson, Jr., Edward Knight, Adolph Rosenthal, James A. Reardon and George B. Carstarphen are the stockholders.

ST. LOUIS, MO.—Bids are asked until Feb. 25 for furnishing five 3-in. and five 6-in. stems for valves, 50 nozzles, 50 brass seats, 150 waste cocks, 1,000 gum gaskets, 500 large gum valves, etc., and until Feb. 26 for furnishing upper and lower stems. Jas. Richardson, Comr. of Supplies.

BERKELEY, CAL.—It is reported that the construction of a 300,000-gallon cement reservoir for the water supply of the University of California will be begun at once.

FRESNO, CAL.—The Squaw Springs Water Co. has been incorporated with a capital stock of $100,000, all paid in, by Alva E. Snow, L. L. Cory and others, of Fresno.

RED BLUFF, CAL.—J. T. Teass, Town Clk., writes us that this town voted on Feb. 12 against issuing $62,500 of 4% bonds for municipal works.

REDLANDS, CAL.—Arthur S. Bent is reported to have been awarded the contract for laying 11 miles of pipe for the Redlands, Lugonia & Crafton Domestic Water Co. Supt., H. W. Allen.

OAKLAND, CAL.—The Shasta Water Co. has been incorporated, with a capital stock of $10,000, by A. Andrew, P. C. Hale, H. L. Morrison and others.

LONDON, ONT.—J. M. Moore, Engr. and Supt., writes us that bids will be asked in about two weeks for 8,500 ft. of 8-in. pipe, 8,000 ft. of 6-in. pipe, 5,000 ft. of 4-in. pipe, including hydraulic works, valves, etc. Wm. Jones, Chn.

MARKHAM, ONT.—The works and light plant of this place were partly destroyed by fire Feb. 16, causing a reported loss of $3,500. M. White, Chn.

ROSSLAND, B. C.—W. S. Norman is reported as interested in the proposed works for this place, to cost about $150,000.

IRRIGATION.

SALTILLO, MEX.—The San Diego Water Co. has secured a charter from the Federal government of Mexico to construct a canal from the head waters of the San Diego River, Coalinela, to lands near the town of C. P. Diaz (Cindad Porfirio Diaz), opposite Eagle Pass, Tex. The capacity of the canal will be 12,000 cu. ft. a minute. The country near the source of the San Diego River is much broken; work will be very heavy; steel flumes, siphons and trusses will enter into the construction. Pres., Lorenzo Gonzales Trevino, of Monterey, Mex.; Ch. Engr., T. S. Abbott, Saltillo, Mexico.

SEWERAGE.

MANCHESTER, N. H.—John T. Frost, Chn., writes us that there will probably be appropriated $45,900 for sewers. More definite information can be secured after the yearly appropriations are made. The city does not contract the work. The committee consists of Aldermen Frost and Stark, and Councilmen Watts, Weathers and Masse. The street and park commissioners have charge of the work. S. J. Lord, Cy. Engr.

LEXINGTON, MASS.—This place is reported to have voted to construct a system. It is probable that the system will be connected with the Metropolitan system. S. A. Saville, Town Clk., writes us that the committee will be chosen March 7.

PROVIDENCE, R. I.—Bids are asked until March 24 for constructing sewage precipitation tanks, as stated in our advertising columns. Robt. E. Smith, Comr. Pub. Wks.

NORFOLK, CONN.—Estimates, specifications, etc., for the proposed system will soon be secured. Burritt Darrow, Chn. Com.; Engr., P. L. Barker, Torrington, Conn.

NEW ROCHELLE, N. Y.—We are informed, in regard to the Hudson Park outlet sewer, that plans for the Hudson Park outlet sewer have been approved by the state board of health, and that the commissioners will probably ask for bids about April 15. Work will be commenced soon thereafter. The work to be done consists of a tunnel under Hudson Park about 500 ft. in length, through which the 24-in. cast-iron outlet sewer will be laid to low water. From this point the sewer will be continued, submerged, across a portion of Echo Bay, a distance of about 3,500 ft., out into Long Island Sound to a point beyond Bailey's Rock. Depth of water, from 7 to 30 ft. J. K. Wilkes, Engr.

BURLINGTON, N. J.—The committee has been authorized by the council to secure plans for a system. Population (1890), 7,264.

BEN AVON, PA.—F. G. Evans, Pres. Council, writes us that plans for a system of 24 to 8-in. pipe sewers have been approved; average cut, 9 ft.; estimated cost, $25,000. Engrs., Trimble & Miller, 430 Fourth Ave., Pittsburg, Pa.

PARNASSUS, PA.—E. D. Cree, Borough Clk., writes us that this place voted Feb. 15 to increase the debt $10,000 for a system. W. J. Stewart, Pres. Council, writes us that the work will be prosecuted promptly. Engr., S. A. Taylor, 330 Fifth Ave., Pittsburg, Pa.

PHILADELPHIA, PA.—Bids are asked by the department of public works until March 3 for constructing branch sewers, inlets, repairs to old sewers, etc. Director, Thos. M. Thompson.

TARENTUM, PA.—G. L. Rutherford, Burgess, writes us that the council is considering a petition for 1,900 ft. of sewers. The question of issuing bonds for local improvements was defeated at the election Feb. 15.

NORFOLK, VA.—It is probable that the question of constructing a system in Brambleton will be voted upon again in May. The question was defeated at the election May 27, 1897. Estimated cost, $150,000.

WHEELING, W. VA.—E. J. Millar, C. E., 19 Masonic Temple, Wheeling, was chosen by the council, Feb. 21, to design a sewerage system for this city.

MADISONVILLE, TENN.—The construction of a system is proposed, according to reports.

COSHOCTON, O.—Bids are asked until March 1 for constructing 4,800 ft. of 12 to 8-in. pipe sewers, 11 manholes, etc. Bids are asked until Feb. 28 for the purchase of $2,700 of 6% sewer bonds, as noted in our issue of last week. I. C. Dickerson, Clk.

EAST CLEVELAND, O.—Mayor E. D. Burton informs us that bids will soon be asked for the purchase of $100,000 sewer bonds. Surveys are now being made for the proposed system by the Walter Rice Engineering Co., of Cleveland,.

LIMA, O.—Bids are asked, until March 19, for constructing a 20 to 24-in. sewer in Pierce and other streets. C. E. Lynch, Cy. Clk.; L. F. Prevost, Cy. Engr.

NAPOLEON, O.—Bids are asked until March 12 for constructing a pipe sewer in Main St., according to reports. Jas. P. Mason, Clk.; C. N. Schwab, Engr.

TOLEDO, O.—Bids are asked until Feb. 28 for constructing 12 and 10-in. pipe sewers in three streets, and until March 7 for 18-in. pipe and 60 to 24-in. brick sewers in several streets. D. P. Harris, Cy. Clk.

TERRE HAUTE, IND.—Bids are asked by the committee until March 1 for constructing 6¾ miles of 80 to 38-in. brick sewers, etc.; check, $4,000. Geo. H. Simpson, Cy. Engr.

EAST ST. LOUIS, ILL.—It is proposed to construct 1¼ miles of sewers in Broadway, according to reports. L. L. Harper, Cy. Engr.

ELGIN, ILL.—Wm. Rundquist, Supt. Sts., has recommended the construction of 60×36-in. brick sewers in North St., from Gifford St. to the river. There was constructed last year in this city about $12,822 worth of sewers.

PARIS, ILL.—It is reported that plans for the proposed system will be prepared. Population (1890), 4,996.

CLEBURNE, TEX.—The council is reported as considering a proposition for the construction of a system.

HOUSTON, TEX.—Bids are asked, until Feb. 28, for constructing a sewer on Smith St. Mayor, H. B. Rice.

SEATTLE, WASH.—City Engineer Thompson has submitted estimates for sewers for several streets, to cost about $18,000.

SPOKANE, WASH.—Bids are asked by the board of public works, until March 10, for constructing a 15-in. pipe sewer to be built from Washington St. to Lincoln St. Otto A. Weile, Cy. Engr.

MADERA, CAL.—An election will be held, Feb. 26, to vote on the question of constructing sewers, according to reports.

PASADENA, CAL.—The city attorney is preparing a proposition to submit to the voters to issue $178,000 in bonds for a system, to be about 47 miles long. W. B. Clapp, Cy. Engr.

SANTA ANA, CAL.—Bids are asked until April 4 for the purchase of $65,000 of 4½% 40-year bonds for the proposed system. Population, 5,300. Engr., Wm. B. Rider, Redlands, Cal.; Edward Tedford, Cy. Clk.

STOCKTON, CAL.—The question of issuing bonds for an outfall sewer, etc., will probably be submitted to the citizens, according to reports.

HONOLULU, HAWAII.—Press reports state that the proposed system for this city will cost $480,000. It is probable that the cabinet will recommend to the legislature the appropriation of $250,000 for a portion of the system. Rudolph Hering, Engr., 100 William St., New York.

GARBAGE DISPOSAL—STREET CLEANING

TROY, N. Y.—Bids are asked until Feb. 25 for sweeping the streets, removing ashes and garbage, etc. E. Ogden Ross, Secy. Contracting Bd.

LA FAYETTE, IND.—Geo. C. Bryant, Deputy Cy. Clk., informs us that the following bids were received Feb. 14 for constructing a garbage disposal plant with Cahill boiler: Pennsylvania Construction Co., Marietta, Pa., $11,225, $10,500 and $8,750; American Sanitary Engineering Co., Toledo, O., $13,300, $14,800, and $12,200. The Engle Sanitary & Cremation Co., Des Moines, Ia., $9,500; and W. J. Willis, Findlay, O., $8,985.

TUCSON, ARIZ.—Bids are asked until March 7 for sweeping and cleaning the streets, removing garbage, etc. Chas. T. Connell, Recorder.

STREETS AND ROADS.

MANCHESTER, N. H.—Alderman John T. Frost informs us that this city will probably appropriate from $40,000 to $50,000 for street work this year. This city does not contract its work.

SOMERVILLE, MASS.—Bids are asked until March 1 for furnishing granite paving blocks, flagging, edgestones, etc. Wm. P. Mitchell, Clk. Com.

BRIDGEPORT, CONN.—A petition has been presented to the board of apportionment requesting the laying of asphalt in Main St., from State St. to Fairfield Ave. The board met Feb. 17 to prepare a list of appropriations for the year.

BUFFALO, N. Y.—Bids are asked until Feb. 28 for stone paving, crosswalks, curbing, gutters, etc., for the year 1898. R. G. Parsons, Secy. Bd. Pub. Wks.

BUFFALO, N. Y.—Bids are asked by the board of public works until March 2 for repairing asphalt pavement for 1898.

ELMIRA, N. Y.—A committee consisting of M. T. Cassada, J. H. Roberts, Charles Chamberlain, Austin Edsall and W. J. Roy have been appointed to investigate the cost of a macadam road from Elmira to the state line.

SCHENECTADY, N. Y.—Bids are asked by the council until March 8 for paving Albany St., from Hulet St. to Brandywine Ave., with Catskill brick and curbing with sandstone; also for grading Brandywine Ave., from State St. to Union St.

ATLANTIC CITY, N. J.—F. P. Stoy, Mayor, informs us that it has been recommended to pave three streets for a total distance of 10 or 12 miles.

PARNASSUS, PA.—This place voted, Feb. 15, to issue $10,000 in bonds for street and sewer improvements. E. D. Cree, Borough Clk.

TARENTUM, PA.—G. L. Rutherford, Burgess, informs us that the proposition to issue $55,000 in street and sewer bonds, mentioned in our issue of Jan. 20, was defeated at the election Feb. 15. A petition has been presented for paving two short blocks; two-thirds of the cost is to be paid by the property owners.

ALLEGHENY, PA.—D. L. Fulton, Supt. Highways and Sewers, writes us that bids will soon be asked for about $200,000 worth of asphalt paving in this city.

MAHONEY CITY, PA.—This place voted, Feb. 15, to spend $80,000 for paving this season, according to reports.

PUNXSUTAWNEY, PA.—An election will be held March 29 to vote on the question of issuing $24,000 in street bonds, according to reports.

HAZLETON, PA.—The council awarded a contract to McCloud & Co., Williamsport, Pa., at $30,659, to pave 18,000 sq. yds. on Broad St. with Porter brick. Work will be commenced early in the spring.

SCRANTON, PA.—Arrangements are about completed by the council for paving the road from Park Place to Dickson City with brick, a distance of about 11,500 ft.; estimated cost, $100,000 according to reports.

ELLICOTT CITY, MD.—A bill has been introduced in the legislature authorizing this city to issue $50,000 in bonds for constructing stone roads.

LYNCHBURG, VA.—We are informed that the amount of the appropriation for the street committee will be decided upon about Feb. 25. L. P. Rodes, Cy. Engr.; J. I. Lee, Chn. Com.

SEVIERVILLE, TENN.—Reports state that bids will soon be asked by the county commissioners for constructing about 21 miles of turnpike road. C. W. Fox may be addressed.

CINCINNATI, O.—Bids are asked until March 18 for grading and brick paving in Wilmink St., from Central Ave. to Baymiller St. A. P. Butterfield, Clk. Bd. Administration.

TOLEDO, O.—Bids are asked until March 7 for asphalt or block paving, etc., in Scottwood Ave., from Virginia St. to Laskey Ave., and until March 21 for paving Collingswood Ave. with asphalt, from Ashland Ave. to Cherry St. Lem P. Harris, Cy. Clk.

INDIANAPOLIS, IND.—B. J. T. Jeup, Cy. Engr., has recommended the construction of cement walks in portions of seven streets and laying gravel in three streets.

PONTIAC, MICH.—The plans submitted by W. J. Fisher, Cy. Engr., for the proposed paving in Saginaw St., to cost about $35,000, have been accepted and a committee, consisting of Aldermen Corwin, Dickinson and Brewster, have been appointed to take charge of the matter.

ELGIN, ILL.—Wm. Rundquist, Supt. Sts., has recommended the paving of North St. with brick between Dundee Ave. and Douglas Ave.

PEORIA, ILL.—The board of public works has adopted a resolution authorizing A. D. Thompson, Cy. Engr., to prepare an ordinance to be presented to the council for the paving of Dechain Ave. with asphalt on the East Bluff.

OMAHA, NEB.—Bids are asked until March 4 for grading Mason St., from 11th St. to 15th St., and the alley in block four between 20th Ave. and 21st St. Andrew Rosewater, Chn.; Wm. Coburn, Secy., Bd. Pub. Wks.

HOUSTON, TEX.—Press reports state that L. A. Guerinser, Cy. Engr., has submitted estimates for paving Capitol Ave., from Main St. to the jail, with the following

material: Asphalt on 6-in. concrete foundation, $18,385; brick on 6-in. concrete foundation, $17,642; brick on sand foundation, $15,413; macadam, $13,184.——The board of public works has awarded a contract to A. T. Lucas, for $24,680, for 11,800 sq. yds. of brick paving in Crawford St., from Clay St. to Hadley St.

SEATTLE, WASH.—Bids are asked until Feb. 26 for grading and constructing sidewalks in First Ave., between Pike St. and Denny Way; estimated cost, $35,000. Frank Gleason, Secy. Bd. Pub. Wks.

WALLA WALLA, WASH.—Bids are asked until Feb. 25 for grading and constructing sidewalks on McAuliff Ave., between Fourth St. and Chase Ave. Chas. N. McLean, Cy. Clk.

ALAMEDA, CAL.—Reports state that R. W. Poyzer, Cy. Engr., has been instructed to prepare a resolution for macadamizing in Versailles Ave.

BERKELEY, CAL.—Guy Hyde Chick, Supt. Sts., has asked the board of trustees of the town to purchase a steam roller for the use of the street department.—— Resolutions of intention have been passed to grade and macadamize Benvenue Ave., from Dwight Way to Parker St., and Russell St., from Adeline St. to Grant St. E. F. Henderson, Asst. Cy. Engr.; C. L. Huggins, Cy. Engr.

OROVILLE, CAL.—Bids are asked by the county supervisors until Feb. 25 for building a road around Deadmund's Hill on the Chico and Humboldt Road.

STOCKTON, CAL.—Bids are asked until March 8 for macadamizing Center St., from the Mormon Channel bridge to South St. I. H. Robinson, Cy. Clk.

SAN RAFAEL, CAL.—Geo. L. Richardson, Geo. D. Shearer and Jas. H. Wilkins, viewers for the county supervisors, have selected the route of the proposed boulevard between San Clement and Reed's station. County Surveyor Richardson is making surveys.

UKIAH, CAL.—Reports state that R. E. Donohue, County Surv., has completed surveys for the proposed road between Yorkville and Fish Rock, to be 28 miles long.

GALT, ONT.—Press reports state that A. J. McPherson, Cy. Engr., has recommended an appropriation of $7,000 for the construction of cement walks.

TORONTO, ONT.—Bids are asked until March 2 for macadamizing in Harbord St., from St. George St. to Huron St., and Davenport Road, from Yonge St. to Hazleton Ave.; also for cedar block paving on Arthur St., from Euclid Ave. Road to Bathurst St. John Shaw, Mayor, Chn. Bd. Control.

MANUFACTURING PLANTS.

LOWELL, MASS.—Plans are being prepared, according to reports, for a new 3-story brick factory building for the H. R. Barker Mfg. Co. to replace the one burned. Archs., Merrill & Clark, Central St.

PAWTUCKET, R. I.—It is reported that the Lebanon Mills Co. will erect a 3-story factory building, 155 × 75 ft. Edward Thayer is interested.

GLASTONBURY, CONN.—The Riverside Paper Co.'s plant at this place was destroyed by fire Feb. 19, causing a total loss of about $21,000.

NIAGARA FALLS, N. Y.—It is reported that a new factory is about to be built here by the Electro Gas Co., of New York, for the manufacture of portable acetylene gas lamps.

HOBOKEN, N. J.—Plans have been prepared for a 2-story brick addition to the machine shop of William Forbes & Co., at Hudson and 13th Sts., according to reports. Archs., Fall & Maxson, 1214 Washington St.

PERTH AMBOY, N. J.—The plant of the Marcy Stove Works at this place has been destroyed by fire; estimated loss, $15,000.

ACWORTH, GA.—John Awtrey, Acworth, informs us that a company is now being organized for the manufacture of spinning cotton. It is proposed to start on a small scale, with home capital. The project is still in embryo.

AUGUSTA, GA.—It is reported that the Belair Factory Co., of Augusta, has been organized to manufacture knit goods, and that a plant will be established at Belair Station, near this city. It is also said that 800 machines will be bought. Pres., W. O. Boykin, Augusta.

ROCK MILLS, ALA.—The Wehadkee Cotton Mills will put in a 125-HP. engine and boiler, according to reports. Secy., F. P. Randle.

LOUISVILLE, KY.—The Indianapolis Brewing Co., Indianapolis, Ind., informs us that the Co-operative Ice Co. is now being organized to establish in this city a cold storage plant.

SOUTH BEND, IND.—The Wells-Krieghbaum Mfg. Co., manufacturers of bank and office trimmings, informs us that bids will soon be received for an 80-HP. engine, and a boiler, and also for the installation of a heating system in new buildings just contracted for. Arch., Elmer E. Wells, care of Wells-Krieghbaum Mfg. Co.

CANTON, ILL.—The Parlin & Orendorff Co., of Canton, will erect a brick foundry, according to reports, and will install new boilers and an engine with from 350 to 500 HP. Secy., U. G. Orendorff.

CHICAGO, ILL.—Plans are being prepared, according to reports, for a 6-story brick and steel factory building, to be erected on Jefferson St., near Washington St., for the Link Belt Machinery Co.; estimated cost, $135,000. Arch., John H. Wagner, 107 Dearborn St.

HAWTHORNE, ILL.—The plant of the Chicago Portland Cement Co., at this place, has been burned, causing a reported loss of $100,000; insurance, $50,000.

MENASHA, WIS.—The contract for constructing the new sulphite mill for the Howard Paper Co., of Menasha, has been awarded to C. B. Pride, of Appleton, Wis. Estimated cost, $40,000.

MILWAUKEE, WIS.—Bids are asked until March 1, according to reports, for erecting a 3-story brick machine shop for the Prinz & Rau Mfg. Co.; estimated cost, $15,000. Archs., H. Messmes & Son, Pabst Theatre Bldg.

TOPEKA, KAN.—Press reports state that the Atchison, Topeka & Santa Fe Ry. Co. will soon erect new car shops and a foundry in Topeka. J. J. Frey, Gen. Mgr.

NEW WHATCOM, WASH.—It is reported that the Pacific Sheet Metal Works will build a $75,000 plant here early in the spring.

SEATTLE, WASH.—The Centennial Mill, owned by the Allis Co., of Milwaukee, Wis., will award contracts, March 1, for machinery that will enable it to turn out about three times as many barrels of flour as it does at present with its 14 roller mills.

SAN FRANCISCO, CAL.—The Manufacturers' and Producers' Association has decided to investigate the advisability of erecting a factory in this city for the making of twine from hemp; estimated cost, $80,000.

SANTA BARBARA, CAL.—Marshutz & Cantrell have been awarded the contract for building a new sugar factory at Laguna Guadulupe, in Santa Maria Valley, near Santa Maria, for the Union Beet Sugar Co., of San Francisco, Cal., at $484,760. A span of the Pacific Coast Ry. is being built to the site. The factory will have a daily capacity of 500 tons of beets. Work is to begin at once in order to finish the work by September. E. C. Burr, Alameda, Cal., will be general manager.

SIDNEY, N. S.—The Nova Scotia Iron & Steel Co., with a capital stock of $1,000,000, which has applied to the provincial legislature for a charter, proposes to build works in Cape Breton or Sidney, and the latter town has offered a bonus of $50,000 for the same. Harry Graham, New Glasgow, N. S., is interested.

HAMILTON, ONT.—The Ontario Rolling Mills at this place, have been burned. The loss on the machinery is estimated at from $20,000 to $25,000.

GAS PLANTS.

ONEONTA, N. Y.—Reports state that the Standard Oil Co. has awarded a contract to Briggs & Muller to construct an oil tank, power house, etc., in this place.

PRINCETON, N. J.—It is reported that the Princeton Gas Works at Witherspoon St. exploded Feb. 18.

LATROBE, PA.—Press reports state that the Phoenix Gas Co.'s plant was destroyed by fire Feb. 9, causing a loss of about $2,000.

STAUNTON, VA.—Reports state that Henry Marquand, L. C. Harris and R. D. Apperson have applied for a franchise to construct and operate a gas plant in this place.

CHARLOTTE, MICH.—Bids are asked by the Charlotte Electric Railway, Light & Power Co. to construct a gas holder of 100,000 ft. capacity, according to reports. E. D. Latta, Pres.

IOLA, KAN.—An election will be held March 7 to vote on the question of issuing $38,000 in bonds for the construction of a gas plant, according to reports.

NEW COMPANIES.—Tri-State Gas Co., Pittsburg, Pa.; $1,000,000, with $1,000 paid in; to do a general oil and gas business; F. M. Lowry, W. S. Watson, Wm. Lyons, Jr., Pittsburg; G. E. Foster, New York; W. S. McManus, Chester, Pa.

Eastern Acetylene Gas Generator Co., Corning, N. Y.; $6,000; A. L. Kiff, D. K. Kiff, L. L. Fowler, Corning.

Economy Gas Light Co., Jersey City, N. J.; $50,000, with $20,000 paid in; Jules S. Bache, Robert A. Hensley, New York; Robt. M. Snyder, M. M. Sweetman, Kansas City, Mo.; Frank E. Ainsworth, Jersey City, N. J.

Paragon Gas Light Co., Newark, N. J.; $100,000; James S. Abercrombie, Edward B. Denny, Newark; John Voysocki, New York.

Star Gasoline Co., Trenton, N. J.; $125,000; George S. Gandy, Joseph M. Crawford, Philadelphia; John B. Peddle, Woodbury.

Empire Oil & Refining Co., Wyoming; $1,000,000; to develop oil fields in Wyoming; John H. Mertz, W. H. Campbell, A. T. Campbell, Philadelphia, Pa.; Otis N. Johnson, Alexander Duer, Merchantville, N. J.

STONE AND CEMENT.—Fort Hancock, N. J.—Bids are asked until March 23 for delivering broken stone and cement for concrete at Fort Hancock, N. J., as stated in our advertising columns. Lt.-Col. Wm. Ludlow, U. S. Engr., Army Bldg., New York.

REPAIRING PIERS.—Muskegon, Mich.—Bids are asked until March 21 for repairing government piers at Muskegon, Pentwater, Portage Lake and Frankfort, Mich., as stated in our advertising columns. Capt. C. McD. Townsend, U. S. Engr., Grand Rapids, Mich.

PUMPS.—St. Louis, Mo.—Bids are asked until March 26 for furnishing two duplex steam pumps, each of 2,000 gallons capacity a minute, for the Mississippi River Commission, as stated in our advertising columns. Capt. H. E. Waterman, Secy., U. S. Engr., St. Louis.

PIER HARBOR.—Waukegan, Ill.—Reports state that the Winthrop Harbor & Dock Co. is about to have a $20,000 parallel pier harbor constructed north of this place, where the company owns about 2,700 acres of land. Capt. Geo. A. Zinn, U. S. Engr., will conduct the work.

LOCKS AND DAMS.—Ohio River.—Eigenmann & Hollerbach and Eichel & Arnold, Evansville, Ind., write us that they do not intend to sub-let the contract for constructing locks Nos 2 and 4 in the Ohio River, as reported in our issue Feb. 3. Work will be commenced as soon as possible. The contract was awarded to them in October, the itemized bids being given in our issue of Nov. 25.

WHARF.—Tampico, Mex.—Press reports state that the new wharf at Tampico, constructed by the Mexican Central Ry. Co., under government supervision, was destroyed by fire Feb. 20. The custom house, under construction and nearly completed was damaged to the extent of $800,000. The total loss on wharf, custom house and merchandise is nearly $2,000,000; fully insured. It was 2,575 ft. long. Ch. Engr., L. Kingman, Mexico.

CONTRACT PRICES.

FLUSHING TUNNEL.—Milwaukee, Wis.—Geo. H. Benzenberg, Cy. Engr., informs us that the following bids were received Feb. 14 for constructing the sewage flushing tunnel, being section No. 1 of the Kinnickinnic River flushing works in the 17th Ward, it will be 12 ft. in diameter, with four rings of brick and from 27 to 85 ft. below the surface:

Bidder.	3,200 lin. ft., a ft.
James Markey, Milwaukee, Wis. (accepted)	$30.53
A. K. Bentley, and W. J. Bentley, Milwaukee, Wis.	39.85
R. J. Hickey, Milwaukee, Wis.	31.45
John O. Jones, Racine, Wis.	36.40
C. J. Crilley, Milwaukee, Wis.	42.00
Reichert Construction Co., Racine, Wis.	37.00
Geo. E. Zimmermann, Milwaukee, Wis.	37.40
R. R. Birdsall, Racine, Wis.	39.50

LOCK, DAM, ETC.—Yamhill River, Ore.—We are informed that the following bids were received Feb. 10 by Capt. W. L. Fisk, U. S. Engr., Portland, Ore., for constructing a lock, dam, etc., in the Yamhill River, as advertised in Engineering News:

Bids Received at Portland, Ore., Feb. 10, for Constructing a Lock, Dam, Etc., in the Yamhill River.

Quantities.		W. L. Prather, Jr., Oakl'd, Cal.	Pugh & Gray, Salem, Ore.	Smyth, David & Paquet, Portland, Ore.	Normile, Fastabend & McGregor, Astoria, Ore.	Oskar Huber, Spokane, Wash.	Wakefield & Jacobsen, Portland, Ore.
Excavation, earth	6,000 cu. yds.	$0.50	$0.24	$1.00	$0.65	$0.73	$0.90
" rock, lock and dam	400 " "	1.30	2.50	1.50	1.50	.85	1.75
" " Martin's Shoals	700 " "	1.20	2.95	2.50	5.75	1.68	3.00
Embankment	3,000 " "	.28	.64	.20	.15	.17½	.25
Piles	13,000 lin. ft..	.30	.15	.09	.13	.18¼	.20
Lumber: Lock foundation, etc.	204,000 ft. B.M.	11.00	11.75	12.00	12.00	14.04	14.00
" Lock gate and sills	18,000 " "	20.00	16.90	30.00	32.00	26.00	30.00
Concrete	7,400 cu. yds.	6.23	5.69	6.43	5.44	6.18	6.50
Wrought iron	30,000 lbs.	.04	.05	.02½	.04	.07½	.05
Cast-iron	25,000 "	.03½	.05	.04	.04	.06½	.05
Drain pipe	450 lin. ft..	1.00	.20	.20	.20	.30	.75
Stone	1,100 cu. yds.	1.10	2.60	1.00	1.25	1.92	1.00
Brush	80 cords..	4.00	2.10	3.00	1.35	1.10	3.00
Keeper's dwelling, etc., complete		2,000.00	1,900.00	1,500.00	2,200.00	1,898.60	2,250.00
Total		$63,861	$60,950	$65,370	$59,918	$66,176	$69,724

MISCELLANEOUS CONTRACTS.

LEVEE WORK.—Pueblo, Colo.—Press reports state that the council has decided to have $30,000 worth of levees constructed by day labor.

CANAL WORK.—New Orleans, La.—Bids are asked by Lichtenstein & Hechinger, 843 Union St., New Orleans, for about 200,000 cu. yds. of canal work.

DREDGING, ETC.—Philadelphia, Pa.—Bids are asked until March 3 for dredging, sprinkling drives, etc., in Fairmount Park. Jesse T. Vogdes, Ch. Engr., Supt.

RETAINING WALL.—Buffalo, N. Y.—Bids are asked until Feb. 28 for constructing a retaining wall at Evans Slip on Erie St. R. G. Parsons, Secy. Dept. Pub. Wks.

ENGINEER WANTED.—Waterloo, Ont.—A. B. McBride, Town Clk., is advertising for a Town Engineer, stating that there is a good opening in the town for a civil engineer.

EARTH REMOVAL.—Omaha, Neb.—Bids are asked until March 4 for the removal of 100,000 cu. yds. of earth on Mason St., from 11th St. to 13th St. Andrew Rosewater, Chn. Bd. Pub. Wks.

LOCK AND DAM.—Minneapolis, Minn.—Plans have been accepted by Capt. Abbott, U. S. Engr., Washington, for constructing the masonry lock No. 2 of the Meeker dam, which is to be of wood.

CONDUIT SYSTEM.—Los Angeles, Cal.—It is reported that Martin C. Marsh has applied to the council for a franchise to construct a conduit system to be used by various corporate interests.

SPRUCE LUMBER.—New York, N. Y.—Bids are asked until Feb. 25 for furnishing about 200,000 ft., B. M., of spruce joists and planks. Jas. McCartney, Comr. Dept. St. Cleaning, 346 Broadway.

SCREEN GRAVEL, ETC.—New York, N. Y.—Bids are asked by the Park Board, Arsenal Bldg., 64th St., until March 3, for furnishing 7,500 cu. yds. of screened gravel, 5,000 cu. yds. of garden mould, etc.

BULKHEAD.—Alameda, Cal.—Reports state that new bids will be asked by the trustees for the construction of a bulkhead wall, 18 ins. across the top, 5 ft. at the base and 7 ft. high, at the foot of Cedar St.

WOODEN PIER.—New York, N. Y.—Bids are asked until March 4 for constructing a wooden pier, including 12,185 ft., B. M., of yellow pine timber, at the foot of East Fourth St. J. Sergeant Cram, Comr. Docks, Pier A.

BRICK PAVING.—Cincinnati, O.—J. D. Harris, Asst. Clk. Bd. Administration, informs us that the following bids were received Feb. 16, for brick paving in Kenyon Alley, from Findlay to York St.; A. P. Butterfield, Clk.:

Quantities.	J. M. Quill, 1052 Pine St.	Thos. Evans, 1228 Ida St.	D. Folz Asp. Pav. Co., 936 Findlay St.	M. T. Flynn, 1252 Chase St.	W. Fogarty, 2550 Burnet Ave.
Broken stone . 4 cu. yds.	$0.01	$0.01	$0.01	$0.01	$0.01
Concrete ..... 45 " "	2.45	2.00	2.40	2.00	2.25
Curbs .....650 lin. ft..	.94	1.00	1.00	.88	.90
Circular curbs. 25 " "	1.60	2.00	1.50	.01	1.25
Grading ..... 90 cu. yds.	.01	.01	.01	.01	.01
Paving, brick..265 sq. yds.	.90	.80	.90	.85	.95
Resetting curb.100 lin. ft..	.01	.01	.01	.01	.05
Relay'g flag'g..100 " "	.01	.01	.01	.01	.05
Rolling .....265 sq. yds.	.01	.01	.03	.03	.01
Repvg asphalt. 10 " "	2.00	.01	1.80	.01	1.00
Granite ..... 6 " "	.01	.01	.70	.01	.01
Total	$1,025	$1,008	$1.067	$890	$993

BRICK PAVING.—Cincinnati, O.—John D. Harris, Asst. Clk. Bd. Administration, informs us that the following bids were received, Feb. 16, for brick paving in Mound Alley, from Court to Clark St:

Quantities.	J. M. Quill, 1052 Pine St.	Thos. Evans, 1228 Ida St.	D. Folz Asp. Pav. Co., 936 Findlay St.	M. T. Flynn, 1252 Chase St.	W. Fogarty, 2550 Burnet Ave.
Broken stone . 10 cu. yds.	$0.01	$0.01	$0.01	$0.01	$0.01
Concrete .....100 " "	2.60	2.00	2.40	2.00	2.25
Curbs .....1,530 lin. ft..	.97	1.00	1.00	.89	.90
Circular curbs. 12 " "	.01	.01	1.50	.01	1.25
Grading .....200 cu. yds.	.01	.01	.01	.01	.01
Paving, brick..590 sq. yds.	.92	.85	.90	.84	.95
Resett'g curbs. 50 lin. ft..	.01	.01	.01	.01	.05
Relay'g flag'g.. 60 " "	.01	.01	.01	.01	.05
Rolling .....590 sq. yds.	.01	.01	.03	.02	.01
Repvg asphalt. 25 " "	2.00	.01	1.70	.01	1.00
Granite ..... 10 " "	.01	.01	.60	.01	.01
Restg manhole 1.....	1.00	1.00	.01	.01	.50
Total	$2,347	$2,242	$2,388	$2,073	$2,217

CEMENT.—Detroit, Mich.—The Milwaukee Cement Co., Milwaukee, Wis., submitted the lowest bid Feb. 16 for furnishing about 50,000 bbls. of cement as may be required during the year at 46½ cts. a bbl. The other bids were: F. B. Stevens, 48 cts. a bbl.; The Western Cement Co., 50 cts.; and Noble & Co., 55 cts. The Milwaukee company secured the contract last year at 48 cts. a bbl.

FILTRATION PLANT.—Albany, N. Y.—The following bids were received Feb. 15 for constructing the water filtration plant, as advertised in Engineering News, the contract being awarded to T. Henry Dumary, Albany, as noted in our issue of last week; Consult. and Ch. Engr., Allen Hazen, St. Paul Bldg., New York; Res. Engr., W. B. Fuller; Supt., Geo. I. Bailey; in concrete and brick work the cement is bid for separately:

INDUSTRIAL NOTES.

THE WEST VIRGINIA BRIDGE WORKS, Charlestown, W. Va., operated by the Vulcan Road Machine Co., is reported to have made an assignment, Feb. 17, to Mr. Frank Beckwith as trustee. The company is said to have a number of good contracts on hand.

THE GATES IRON WORKS, Chicago, Ill., informs us that the outlook for business during the coming year is very good. It has now in use about 35 or 40 of its largest rock crushers, having a capacity of 150 to 200 tons of broken stone an hour. One of these, at the quarries of the Pittsburg Limestone Co., New Castle, Pa., has in 14 months crushed 23,174 car loads, averaging 24 gross tons each, in working days of 10 hours. This gives an average hourly product of over 180 tons for 14 months. June 21, 1897, this machine crushed 2,175 tons of rock.

THE CHICAGO PORTLAND CEMENT CO. had its plant at Hawthorne, Ill., destroyed by fire, Feb. 13, involving a loss of about $100,000. The plant was being enlarged and a water tower for fire protection, had just been completed, but not put in service. The plant will be rebuilt.

KEARNS & EGAN, Philadelphia, general contractors for steam and electric railway and heavy masonry construction, have made arrangements whereby they will be represented in future in New York city and vicinity by Mr. Andrew Earnest Foye, Assoc. M. Am. Soc. C. E., No. 11 Broadway.

THE WEINMAN MACHINE WORKS, Columbus, O., advises our representative that they are now building steam pumps of the larger sizes, and have a number of contracts on hand. They are also building a large amount of stereotyping machinery for shipment to all parts of the United States, as well as to Mexico.

MR. W. H. MEREDITH, of W. H. Meredith & Co., Cincinnati, has transferred his interest in the general machine shop business of that firm to Symonds & Fleming, and has removed to Pearl and Yyons Sts., where he will carry in stock all kinds of water-works supplies, making a specialty of the steam pumps, valves, etc., manufactured by Snyder & Wilson, Pittsburg, Pa. He is prepared to furnish estimates and plans for steam-heating systems as well as for all appurtenances used in constructing water-works.

BORGER BROS. & CO., Columbus, O., boilermakers, are now building an addition to their plant 40 × 76 ft., and 63 ft. high, in which they are to install a 9-ft. hydraulic riveting outfit, including a 10-ton hydraulic crane, to be furnished by Mr. Wm. H. Wood, Media, Pa. The steel for the new building was supplied by the Pittsburg Bridge Co. The Ingersoll-Sergeant Drill Co. is furnishing an air compressor capable of pumping 200 ft. of air a minute. Mr. Samuel Borger, proprietor, states that they are very busy at present.

THE CASE MFG CO., Columbus, O., is building two 30-ton electric cranes to be shipped to Sydney, New South Wales, through its agents. The company recently furnished a crane to the Totten & Hogg Iron & Steel Co., Pittsburg, and is building a hand power crane for the Capitol City Traction Co., Washington, D. C. The new building of the company, 165 × 75 ft., designed especially for manufacturing locomotive, hand power and all types of electric cranes, has been completed, and the installation of the machinery will be completed at once in order that the shop can be put in operation about April 1.

THE BALDWIN LOCOMOTIVE WORKS, Philadelphia, has presented the compound passenger locomotive, designed by Mr. S. M. Vanclaire and exhibited at the World's Fair, in Chicago, in 1893, to Columbia University, according to report. It is said to have cost $12,000, and that $3,510 will be required to transport it to the university and set it up in the mechanical laboratory where it will be mounted on friction wheels, admitting of its being run at its highest speed.——The company is also reported to have a contract from the Russian government for 14 locomotives for use on the regular line in European Russia. This is said to make a total of 34 locomotives under construction by these works for the Russian government.

THE MILWAUKEE BRIDGE & IRON WORKS (The J. G. Wagner Co., proprietor), Milwaukee, Wis., is busy in all departments at present. Among contracts on hand is one for all the steel work for the John Druecker fireproof warehouse, 15 stories in height, of heavy construction, the columns being designed for carrying a load of 400 lbs. per sq. ft.; contract price, $82,000. In the railway department the company has recently been awarded contracts for six spans by the Chicago, Milwaukee & St. Paul Ry., and one for eight spans by the Wisconsin Central R. R. In the highway department a large number of orders are on hand. The company expects soon to begin running its shop at night.

BIDS RECEIVED AT ALBANY, N. Y., FEB. 15, FOR CONSTRUCTING THE WATER FILTRATION PLANT.

Quantities.		Henry Dumary,* Albany, N.Y.	T. W. Kinser & Sons, Waltham, Mass.	Warren-Scharf Asphalt Pvg Co., New York.	Jonathan Clark & Sons Co., Chicago, Ill.	Long & Little, Leominster, Mass.	M. J. Dady, B'klyn, N.Y.	McGuire & Hall, New York.	Prescott, Buckley & Callanan, Keeysville, N.Y.	P. J. Carlin & Co., Brooklyn, N.Y.	McDonough & Cunningham, Troy, N.Y.	Engineer's estimate.
Shale rock excavation	5,000 cu. yds.	$1.20	$0.30	$0.77	$0.60	$1.50	$0.90	$0.846	$1.00	$1.25	$0.60	$0.80
Earth excavation above grade	60,000 " "	.27	.30	.13¼	.23	.21	.27	.476	.20	.30	.34	.20
Below grade	3,000 " "	.30	.30	.20	.50	.40	.50	.584	.25	.60	.40	.40
Rolled clay and gravel embankments	21,000 " "	.82	.75	.54	.45	.57	.60	.67	.90	.85	.65	.50
Silt and loam filling	23,000 " "	.15	.30	.20	.25	.30	.27	.15	.15	.30	.50	.20
General filling, rolled	18,000 " "	.18	.30	.15½	.20	.07	.17	.12	.30	.28	.40	.20
Puddle in place	13,000 " "	.71½	.80	1.07	.90	.90	1.00	.67	1.00	.90	.85	1.00
Broken stone or gravel for lining	1,900 " "	.85	1.00	.99	1.00	1.25	1.00	1.00	1.00	1.25	1.40	1.25
Sodding	3,000 sq. yds.	.15	.20	.16½	.25	.30	.50	.25	.80	.50	.25	.15
Seeding	8 acres	25.00	25.00	12.50	30.00	15.00	30.00	70.00	50.00	35.00	15.00	50.00
Gravel in roadway, rolled	800 cu. yds.	.80	1.00	1.03	1.25	1.20	1.25	1.20	1.00	1.50	1.25	1.00
Vitrified brick laid as paving	120 M	20.00	20.00	19.89	18.00	20.00	22.00	25.00	30.00	20.00	20.00	20.00
Stone curbing	800 lin. ft.	.60	.65	.77	1.00	1.10	.75	.75	1.25	1.50	.75	.50
Concrete in floors	11,000 cu. yds.	2.31	2.40	2.34	3.25	2.50	2.40	3.50	3.25	3.10	3.25	3.00
Concrete in vaulting	7,000 " "	3.85	3.90	6.94	4.00	4.70	4.50	3.99	4.50	7.50	4.75	5.00
Other concrete	3,000 " "	2.13	3.40	2.69	3.00	2.50	2.40	4.10	3.00	4.30	3.25	3.00
Brick work	4,500 " "	8.12½	7.00	7.38	8.00	8.50	7.62	7.25	10.00	7.00	9.50	6.00
Imported Portland cement	500 bbls.	3.12½	2.50	2.60	3.00	3.00	2.50	2.50	3.15	2.35	3.00	2.75
American Portland cement in bbls.	14,000 "	2.14½	2.00	2.10	2.21	2.10	2.15	1.90	2.10	2.00	2.10	2.15
" " " bags.	14,000† "	1.93½	1.85	1.98	2.01	1.95	2.00	1.70	1.95	1.80	1.90	2.00
Rosendale cement	1,500 " "	.97½	1.10	.86	1.00	1.00	1.00	.85	1.95	.90	.95	1.00
Furnishing and placing 2-in. drain pipe in piers	525.00		1,318.00	818.00	500.00	500.00	550.00	625.00	800.00	1,616.00	300.00	700.00
2-in. agricultural drain pipe	2,000 lin. ft.	.04	.10	.06¾	.06	.08	.10	.07¼	.05	.06	.05	.05
6-in. drain pipe with open joints	16,000 " "	.11	.10	.11¼	.10	.11	.12	.12½	.12	.10	.11	.10
Fur. and laying all vit. pipe with cement joints	5,337.00		4,500.00	5,933.00	4,400.00	3,900.00	4,160.00	4,200.00	6,600.00	3,850.00	3,900.00	6,000.00
Placing all gates, etc., furnished by the board	1,140.00		1,200.00	1,948.00	1,470.00	700.00	1,000.00	2,000.00	1,200.00	1,000.00	800.00	470.00
Fur. and placing all cast-iron pipe and specials	20,701.25		17,500.00	18,800.00	20,100.00	18,000.00	18,500.00	15,804.00	17,500.00	14,750.00	18,000.00	15,000.00
Iron filter covers	672 each	4.40	6.00	5.67	6.00	5.35	5.00	5.68	6.50	6.00	5.13¾	5.00
Sand-washing apparatus	2 sets	393.00	400.00	250.00	500.00	500.00	750.00	380.00	900.00	750.00	1,000.00	800.00
Sand-run fixtures	8 each	407.50	375.00	255.00	400.00	325.00	100.00	202.00	500.00	511.00	450.00	200.00
Regulator houses	8 "	862.24	825.00	523.00	670.00	900.00	960.25	175.00	800.00	670.00	900.00	500.00
Office and laboratory building	4,881.00		3,300.00	6,825.00	2,700.00	3,500.00	3,887.00	10,200.00	3,500.00	3,700.00	3,500.00	3,000.00
Filter gravel in place	7,000 cu. yds.	1.05	1.45	1.12	1.00	1.35	1.50	1.38	1.10	1.85	2.00	1.50
Filter sand in place	36,000 " "	1.00	1.20	1.05	1.25	1.25	1.40	1.15	.90	1.50	1.78	1.25
Split stone lining	2,000 sq. yds.	.82	2.00	1.03	1.65	2.00	1.25	2.80	2.00	3.60	1.50	2.00
Rough stone paving	200 " "	.82	2.00	.93	1.00	1.00	1.25	2.50	1.50	3.50	1.25	.80
Fasteners fur. & pld, c'rete vaults	3,000	200.00	220.00	175.00	200.00	185.00	200.00	150.00	225.00	150.00	200.00	100.00
Iron fence	850 lin. ft.	2.00	1.68	1.93	1.80	1.75	2.00	2.00	1.80	1.80	1.00	1.00
Connection with pump well and closing old intake	3,000.00		1,000.00	2,485.00	2,300.00	4,000.00	1,500.00	1,000.00	3,200.00	3,100.00	4,000.00	3,500.00
Total		$309,866	$322,358	$325,983	$330,982	$334,223	$335,767	$337,761	$348,443	$384,766	$387,345	$322,440

*Henry Dumary, Albany, and Wilson & Baillie Mfg. Co., New York. †Or 56,000 bags.

BREAKWATER.—San Pedro Harbor, Cal.—It is stated that Hingston & Sylvester, Buffalo, N. Y., submitted the lowest bid Feb. 10 for constructing a breakwater 8,500 ft. long at San Pedro Harbor, furnishing all the material, at 70 cts. a cu. yd. for foundation; 51 cts. a cu. yd. for substructure; $1.90 a cu. yd. for superstructure, and $7.50 a cu. yd. for concrete; total, $1,519,074; or with stone supplied from the government reservation on San Clemente Island, 65 miles distant, at 65 cts. a cu. yd., 46 cts. and $1.60, respectively, for foundation, substructure and superstructure; total, $1,349,285. Heidmaier & Neu, Chicago, Ill., submitted the lowest bid with St. Clemente stone, at 54½ cts. for foundation and substructure, and 72 cts. for superstructure; total, $1,303,199. Their bid for their own stone was 63 cts. for foundation and substructure, $1.66 for superstructure, and $6.80 for concrete. The specifications called for the building of a breakwater of a length of 8,500 ft., or longer, if found practicable. No less than 1,933,603 tons of stone are required for the substructure, 221,025 tons for the superstructure, and 136,020 long tons for the foundations, and 2,370 cu. yds. of concrete. Each end of the superstructure will be formed of a single block of concrete 40 ft. square and 20 ft. in height. Maj. Chas. E. L. B. Davis, U. S. Engr., Flood Bldg., San Francisco.

MACADAMIZING, ETC.—Berkeley, Cal.—We are informed that the following contract has been awarded to the Berkeley Rock Co. for grading, curbing and macadamizing Milvia St., from University Ave. to Addison St.: Grading 20 cts. a cu. yd.; curbing (redwood), 8 cts. a lin. ft.; macadamizing, 5 cts. a sq. ft.; gutters ((grouted stone), 6 cts. a sq. ft. E. F. Henderson, Asst. Cy. Engr.; C. L. Huggins, Cy. Engr.

WATER AND LIGHT PLANT.

GREENWOOD, S. C.

Sealed proposals will be received by the Board of Water Commissioners of Greenwood, S. C., until twelve (12) o'clock noon, March 22, 1898, for constructing a complete system of water-works and electric light plant, and furnishing material for same.

Work will consist of a stand-pipe, 18×100; two pumps of three-quarter millions capacity each; reservoir and seven miles of street mains, 12 to 4 inches in diameter; fifty-two (52) hydrants; valves, valve boxes, pumping station, etc.; an arc light machine of fifty (50) light capacity; an incandescent light machine of one thousand (1,000) light capacity; forty (40) arc lamps in place; engine, switch-board, etc. Proposals will be received on the whole or any of the sub-divisions as shown by the specifications. Each proposal must be accompanied by a certified check and must be on blank form which will be furnished by the city. A bond of 20 per cent. of the contract will be required.

Plans and specifications will be on file and may be seen at the office of the Water Commissioner in Greenwood, S. C., and also at the office of Nesbit Wingfield, Consulting Engineer, Augusta, Ga.

The Board of Water Commissioners reserves the right to reject any or all bids.

B. M. HOYS, Chairman,
J. T. DAVIS,
A. ST. CLAIR LEE,
8-1t Commissioners of Public Works.

DUMP CARS.

NOTICE TO CAR BUILDERS, FOUNDRIES AND MACHINE SHOPS.

Sealed bids for the construction and delivery of forty-two (42) self-righting, geared dump cars for use in the construction of Gray's Harbor Jetty, Washington, will be received until 12 o'clock, noon, of March 10th, 1898. Bids received for cars complete or for material. Plans and specifications furnished upon application.

HALE & KERN CONTRACT CO.,
8-1t 340 East Water St., Portland, Ore.

U. S. ENGINEER OFFICE, Army Building, New York, Feb. 21, 1898.—Sealed proposals for delivery of BROKEN STONE AND CEMENT for concrete at Fort Hancock, N. J., will be received here until 12 m., Mar. 23, 1898, and then publicly opened. Information furnished on application. WILLIAM LUDLOW, Lieut.-Col., Engrs. 8-4t

OFFICE OF THE LIGHT-HOUSE ENGINEER, Fourth District (Room 20, Fourth Floor, P. O. Building), Philadelphia, Pa., February 23, 1898.—Sealed bids will be received at this office until noon, Wednesday, March 23, 1898, for furnishing the materials and labor of all kinds necessary for the construction, erection and delivery of the DWELLING, ETC., for the Maurice River Range Light-Station, New Jersey. Specifications, forms of bids, and further information may be obtained on application. The right is reserved to reject any and all bids, and to waive any defects. W. A. JONES, Lieut.-Col., Corps of Engineers, U. S. A., Engineer 4th L. H. District. 8-2t

U. S. ENGINEER OFFICE, 57 Park St., Grand Rapids, Mich., Feb. 19, 1898.—Sealed proposals for REPAIRING GOVERNMENT PIERS at Muskegon, Pentwater, Portage Lake, and Frankfort, Mich., will be received here until 12 o'clock noon, March 21, 1898, and then publicly opened. Information furnished on application. C. McD. TOWNSEND, Capt., Engrs. 8-4t

TREASURY DEPARTMENT, Office Supervising Architect, Washington, D. C., February 14, 1898.—Sealed proposals will be received at this office until 2 o'clock p. m., on the 9th day of March, 1898, and opened immediately thereafter, for all the labor and materials required to place in position complete, a tower clock and bell, for the U. S. Court House, Custom House and Post Office building at Omaha, Nebraska, in accordance with the drawings and specifications, copies of which may be had at this office or the office of the Superintendent at Omaha, Nebraska. The right is reserved to reject any or all bids and to waive any defect or informality in any bid should it be deemed in the interest of the Government to do so. Proposals must be enclosed in envelopes, sealed and marked, "Proposal for Tower Clock and Bell for the U. S. Court House, Custom House and Post Office, Omaha, Nebraska," and addressed to the Supervising Architect. 7-2t

PROPOSALS FOR PUMPS.—Mississippi River Commission, 2732 Pine St., St. Louis, Mo., Feb. 24, 1898.—Sealed proposals, in triplicate, for furnishing TWO DUPLEX STEAM PUMPS, each of 2,000-gallons capacity per minute, will be received here until 12 o'clock noon, Standard time, Mar. 26, 1898, and then publicly opened. Information furnished on application. H. E. WATERMAN, Capt., Engrs., Secretary. 8-4t

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